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ABSTRACT

This is number 11 in a series of resource manuals consisting of 11 sequenced curriculum guides developed by the Demonstration and Research Center for Early Education (DARCEE) for use in early childhood education programs. Emphasis is placed on the development of sensory, abstracting and mediating, and response skills. The projected order of the units is: (1) All About Me, (2) Plants, (3) Autumn, (4) Home and Family, (5) Winter, (6) Forest Animals, (7) Neighborhood and Community, (8) Farm Animals, (9) Spring, (10) Transportation, (11) Farm Crops. Each unit is intended to build upon skills developed in the preceding ones. The eleventh unit, "Farm Crops," is primarily a social studies unit covering crops and foods from field to market. The major content objective is to develop children's understanding of where the food they eats comes from and the steps involved in growing and marketing it. The suggested time for the unit is two to three weeks. Instructional activities are presented side by side with basic skills to be developed, and space is provided for teachers to outline additional activities and skills. A list of instructional materials and their sources is given. The appendix includes patterns for teacher-made materials. (MS)

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UNIT MANUAL ELEVEN:

FARM CROPS

CURRICULUM GUIDE

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The Demonstration and Research Center for Early Education
John F. Kennedy Center for Research on Education
and Human Development

FARM CROPS

Unit 11

by

Ann Lewis
Janet Camp
Mary Anne Downey
Lenore Gabel

The Demonstration and Research Center for Early Education
John F. Kennedy Center for Research on Education and Human Development
George Peabody College for Teachers
1972

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FOREWORD

The Use of DARCEE Resource Unit Manuals

The series of resource unit manuals consists of 11 curriculum guides. Each unit builds upon preceding units, moving the child to higher levels of development and understanding. The projected order of the sequence of units is as follows:

1) All About Me
2) Plants
3) Autumn
4) Home and Family
5) Winter
6) Forest Animals
7) Neighborhood and Community
8) Farm Animals
9) Spring
10) Transportation
11) Farm Crops

Although it is not suggested that the units be individually followed as "recipe books," it should be restated that each unit builds upon skills developed in preceding ones. Thus, beginning with activities in Unit 10 would present problems for the children if they have had no opportunities to develop and refine the skills presented in preceding units. Another reason for "beginning at the beginning" is the development of the teacher. The first five units are written in a great deal of detail to be very supportive of the teacher and give her a number of illustrations of skill development activities. As she becomes more confident and creative in designing her own activities and materials, the text becomes less descriptive and detailed. Units 6, 7, and 8 will present more opportunities for the teacher's original ideas. The final three units are planned as "skeletal" guides indicating skills and concepts, a few suggested activities and a publications list. They will leave a lot to the discretion, imagination, and abilities of the individual teacher.

Each unit begins with an introduction stating the specific goals and objectives of that unit. A certain number of weeks for covering the material is suggested. These <u>are suggestions</u>, however, and should not be interpreted as "law." The most appropriate way for a teacher to use the units is in the way that will be most valuable to each teacher and her particular group of students. Adjustments may need to be made on the basis of geographic location, the range of the children's experiences and the amount of time required to cover the desired material. The teacher may decide to substitute some of her own activities. She may like some units better than others; prefer some sections over others. She should feel free and comfortable in making these adjustments.

Should the teacher decide to follow the units rather closely at first, she should do so bearing in mind that the subject matter they cover was meant to be only a part of a full day's activity. Three solid weeks of any one unit, all day, everyday, could be a disaster as far as maintaining interest, attentiveness, and motivational level. It would also be advisable to skip a day of unit related activity occasionally for the same reason.

The basic layout of the resource units runs approximately according to the following pattern:

1) Introduction
2) Concepts and Understandings
3) Skills
4) Sequenced Instructional Guide
5) List of Suggested Materials
6) Appendix

DARCEE Curriculum--An Information Processing Model

I. SENSORY SKILLS--"Input" Receiving information

Orienting and Attentional
- Visual
- Auditory
- Tactile-Kinesthetic
- Taste-Olfactory

Discriminatory
- Visual
- Auditory
- Tactile-Kinesthetic
- Taste-Olfactory

Relational
- Visual
- Auditory

Sequential
- Visual
- Auditory

II. ABSTRACTING AND MEDIATING SKILLS--"Organization" Organizing information

Basic Concept Development

color	length	speed
shape	volume (aud.)	taste
size	texture	flavor & odors
number	weight	time
position	temperature	age
volume	motion	affect
pitch		

Association
1. Objects with objects--functionally, spatially, temporally
2. Labels with objects, sounds, actions, concepts
3. Labels with labels

Classification
1. Deductive classification
2. Inductive classification

Sequencing
1. Motor--sequencing series of actions, directions, events
2. Verbal--sequencing a series of concepts, events

Critical Thinking
1. Drawing relationships
2. Making inferences
3. Making predictions
4. Analyzing problem situations
5. Synthesizing ideas
6. Hypothesizing
7. Evaluating
8. Drawing analogies
9. Analyzing absurdities

III. RESPONSE SKILLS--"Output" Expressing information

A. Verbal
- Fluency
- Articulation
- Syntax
  - a. Single-word level--identification of objects, actions, sounds, concepts
  - b. Phrase level
  - c. Complete sentence level
    - simple declaratives
    - interrogatives
    - negatives
    - "and" statements
    - "or" statements
    - "if-then" statements
    - "I don't know" statements
    - complex sentences--adverbial clauses

B. Motor

Small-Motor Coordination (eye-hand coordination)

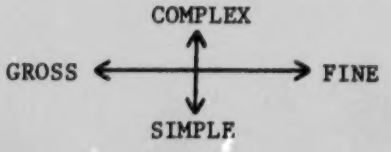
pasting	lacing & weaving
modeling	tracing
painting	solving mazes
coloring	following dots
stringing	printing
drawing	
cutting	

Orientation
- left-to-right progression
- top-to-bottom progression
- front-to-back progression

Basic Skill Development

The Information Processing Model provides a framework for an emphasis on basic skills to be extended and developed through the activities of each unit understanding. The primary purpose of the unit content is to motivate and encourage children to use basic skills. Mastery of unit content, then, is secondary to the development of basic skills. Instructional activities utilize materials and experiences of interest to most young children, thereby providing children with many opportunities for developing SENSORY, ABSTRACTING, and RESPONSE SKILLS--those skills necessary to receive information, to organize information, and to respond to, or use, information in a meaningful way. These are the skills necessary for cognitive growth and the development of intellectual competency. Mastery of the basic skills will make it more possible for children to impose order and structure upon the environment in which they find themselves.

While the DARCEE Curriculum diagram has categorized specific skills under the headings of Sensory, Abstracting, and Response Skills, it is important to note that in reality there is no such clear-cut separation. The diagram is a conceptualization of a process and, as such, is a representation of a way to organize basic skills in order to think about them in relation to curriculum development. It does not imply that at any time a child would be expected to use one skill only. For example, even though an activity may emphasize the development of color concepts (abstracting skills), the child is using, at the same time, his sensory skills (receiving information) and perhaps also his response skills (expressing information about color). The categorization of basic skills is simply intended to point out the emphasis of a particular activity while assuming that in any endeavor the child is actually using a variety of skills to reach a particular outcome.



Development of Sensory Skills

Sensory skills refer to those skills which involve the senses of seeing, hearing, tasting, smelling, feeling, and touching. They are basic to all skill development because all that is learned is received through one, or a combination of more than one, of these senses. A child sees that two cubes are alike because he sees they are the same color. A child hears that two sounds are different because one is loud and one is soft. A child feels that a pin is sharp because it sticks him. Generally speaking, however, simply receiving information through the senses does not require the child to think about the information. The child can see that two cubes are alike, or hear that two sounds are different without knowing, or thinking about, the name of the color of the cube or saying that one sound is loud and one is soft. The child can sense the pain of the pin prick without knowing the words sharp or pin.

When activities that emphasize sensory skill development are presented, the child is expected to behave in a physical way rather than to respond verbally (with words, phrases, or sentences). It is certainly all right for the child to respond verbally for he is, in fact, letting you know that he is ready for the next level of skill development. What is important, though, is that the behavior usually expected when the emphasis is on sensory skill development is in terms of a physical rather than a verbal action.

Activities emphasizing the receiving of information through the senses represent the first level of skill development in the DARCEE Curriculum. A wide range of sensory experiences, with the teacher close by to label and describe, provides the foundation upon which the child builds more complex skills and understandings. The ability to take in information through all the senses is fundamental to the future learning of the child.

Development of Abstracting and Mediating Skills

Abstracting and mediating skills refer to those skills which make it possible to organize and store incoming information in such a way that it can be readily available for present and future use. The development of these skills helps the child pull out the most important factors to remember about a person, object, or event. Impressions received through the senses are soon lost unless the child has some way of organizing the key elements of information. New information becomes more meaningful when it can build upon what is already known. Being able to organize information requires the child to think about incoming information and to sort out what is most important about it.

The level of a child's language development is very closely related to the development of abstracting and mediating skills. In fact, the ability to associate labels with objects is a mediating skill; e.g., using the word round to associate balls, apples, oranges, circles. The child does not necessarily have to be able to speak the word at this point. He may have a much larger understanding vocabulary than he does a speaking vocabulary. It is often by his physical action, an observable behavior, that the child indicates he is able to organize information--to associate, classify, and sequence things in his environment. When the child has had many opportunities to experience round objects, he may be shown a ball and a cube and be asked to show which one is round. If indeed the child has in some way organized information about roundness, he will respond by pointing to, or picking up, the ball. He will respond in a similar way to the presentation of any round object whether or not he has knowledge of the particular object. For example, the child may never have seen a globe; but when shown a globe and a cube, he will be able to pick out the globe as something round.

Activities emphasizing the organization of information through abstracting and mediating skills represent a second level of skill development in the DARCEE Curriculum. According to the individual child's skill level, he may be expected to respond either non-verbally or verbally. The response the child uses is dependent upon the quantity and quality of his sensory experiences and his level of language development.

Development of Response Skills

Response skills refer to the ways in which the child is able to use or express the information he has organized. The responses may be verbal, moving from single words to complex sentences, or the responses may be physical actions; e.g., cutting, pasting, painting, etc. All unit activities call for either verbal or motor (physical) responses, or a combination of both, and are sequenced to help the child refine his skills of responding, moving from gross responses (single words, tearing paper) to fine responses (complex sentences, cutting on a line with scissors).

Levels of Skill Development

Discriminates: the ability to make some distinction of likeness and difference between people and objects. The child may point to something, pick it up, turn his head in the direction of it, etc.--a physical action indicating that through one of his senses he is aware of likeness and difference. Matching, the ability to place like objects together, requires the child to discriminate, such as, between a red cube next to another red cube and a red cube on top of a piece of paper. Neither discriminating nor matching requires a verbal response.

Recognizes: The child indicates by a physical action that he understands what is said to him. Recognition does not require a verbal response--the teacher supplies the label. A red, a yellow, and a blue cube are placed before the child. The teacher says, "Show me the yellow cube." The child recognizes the concept of yellow if he points to or picks up the yellow cube.

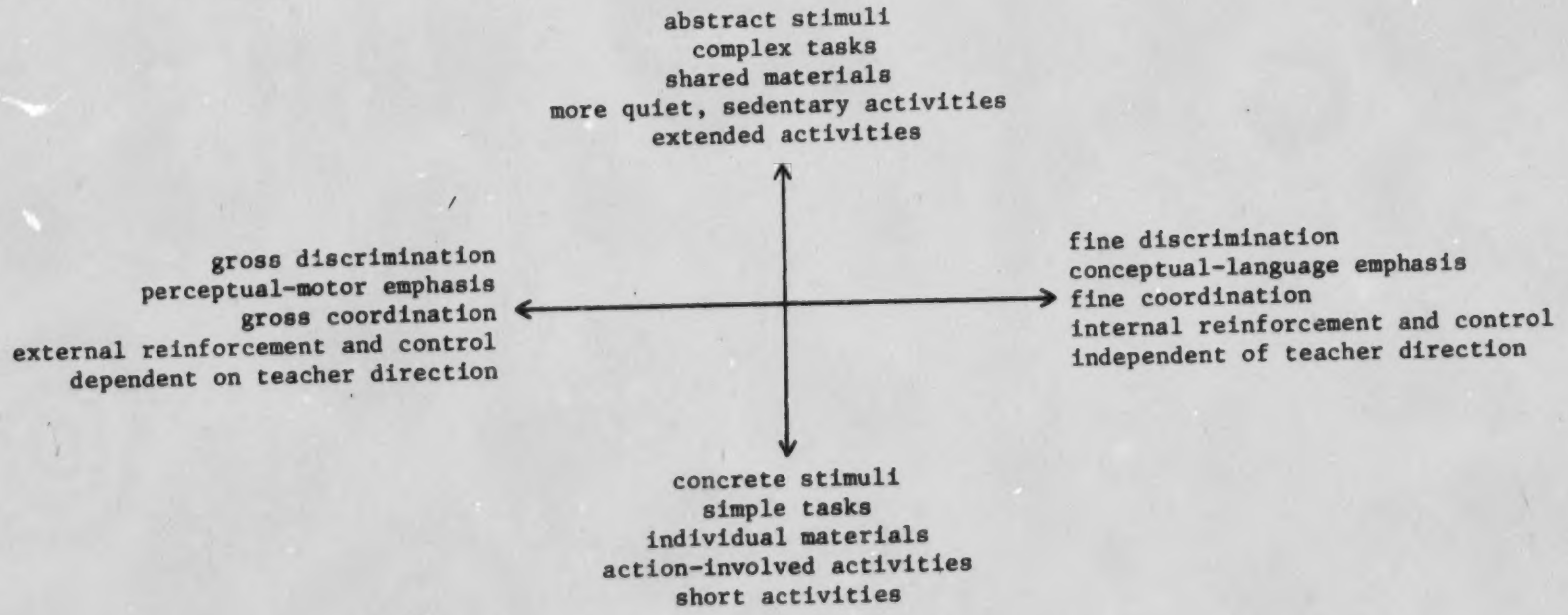
Identifies: The child is expected to give a verbal response--to supply a label for a given object. The teacher holds up the yellow cube and asks, "What color is this?" The child identifies when he responds with the word yellow.

Sequencing Within the Curriculum

Throughout the DARCEE Curriculum Guides, it will be noted that the expectations for the development of children follow a sequential order. The child must be able to discriminate and match objects before he is expected to recognize them. He must be able to recognize objects before he is expected to identify them.

discriminate / match → recognize → identify

Additionally, sequencing principles determine the order of the presentation of unit content and skill development activities. Unit content is developed in an order of increasing complexity and abstraction while, simultaneously, skill development is proceeding from simple, gross, sensory skills to complex and abstract response skills. Each unit builds upon the concepts and skills of preceding units, moving the child to higher levels of understanding and skill development. For example, the content of the first unit, All About Me, was about the child himself--a topic of obvious concern and interest to him. Succeeding units about people take the child away from himself into the Home and Family and then the Neighborhood. Proceeding through the units, instructional activities provide many opportunities for the skills of receiving, organizing, and expressing information to become increasingly refined and complex. Within each unit, the instructional activities are ordered to coincide with the continuing growth and development of more abstract and complex skills. In utilizing the principles of sequencing, the DARCEE Curriculum makes it possible to begin at the child's immediate level of development, and, by reviewing and extending previously learned concepts and skills, to introduce the child to higher levels of skill development in a manner appropriate for the individual child.



How to Use DARCEE Curriculum Guides 8, 9, 10, 11

For each experience described under Suggested Instructional Activities, there is a list of specific skills children will be developing through doing the activities. Specific basic skills are related to each activity in the following manner:

SKILLS TO BE DEVELOPED	SUGGESTED INSTRUCTIONAL ACTIVITIES
Visual 1. Whole-part-whole relationship Concept Development 2.,3. Recognizes and identifies size concepts (big, middle size, little) Association 1. Associates the animal with its characteristics Sequencing 2. Recalls the order of story content Verbal Response 2.,3. Uses single words and phrases Models complete sentences Motor Response 1.,3. Coordination	1. Give each child an envelope with cut-out body parts of a bear. Have the child paste the parts on manila paper to make a bear. 2. Read The Three Bears. Have the children recall the story content in sequence. 3. Give the children a ditto of The Three Bears. Have them paste the appropriate size bowl, chair, and bed under each bear.

Look at the column headed "Skills To Be Developed." Notice that there is a numeral beside each skill. This numeral corresponds to an activity in the column headed "Suggested Instructional Activities"; e.g., beside the skill "whole-part-whole relationship" is the numeral 1, indicating that this skill is emphasized in activity 1. By referring to the Curriculum diagram, you can then determine the category of the specific skill. This should make it possible to plan activities that meet the skill development needs of your particular group of children.

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I. Introduction

The eleventh unit, Farm Crops, is primarily a social studies unit. It covers crops and foods from field to market. Like earlier DARCEE units, it is intended to review and extend the understandings, concepts, and skills which the child has previously developed.

The major content objective is to develop the child's understanding of where the food he eats comes from and the steps involved in growing and marketing it. The major skill objectives for the child are to further develop and refine his Sensory Skills and to encourage the development of his Abstracting, Mediating, and Response Skills--especially Verbal Response Skills.

Like the last three units, this unit is intended to be a "skeletal" guide for the teacher. Where possible, blank areas have been left for the teacher to write in her own activities and skills to be developed. By paying careful attention to sections II, III, and V, the teacher should be able to develop additional or alternative activities for each unit understanding.

It is expected, as with preceding units, that this unit will need to be adapted to a particular group of children and to a particular geographic area. The content of the unit understandings should be altered so as to be appropriate for the group of children and the area.

It is suggested that two to three weeks be devoted to this unit. You will need to adjust the length of time according to the interest, attention span, and skill level of your children. The unit understandings and basic skills are ordered from the most simple to the most complex so that the unit can be terminated at any point where the content or skill development becomes too complex or abstract for the children to grasp. Instructional materials, commercial or teacher-made, should be adapted for your particular group of children emphasizing concrete first-hand experiences insofar as possible.

II. Concepts and Understandings

A. There are many different kinds of farms.

1. Some farms raise only animals.

a. Some farms raise many different kinds of animals.

b. Some farms, specialty farms, raise just one kind of animal--cattle (dairy farms, ranches), horses, sheep (ranches), chickens (poultry farms), hogs.

2. Some farms raise only plants.

a. Some farms raise many different kinds of plants--truck farms.

b. Some farms, specialty farms, raise only one kind of plant--wheat, tomatoes, apples, or trees (nurseries).

3. Some farms raise plants and animals.

B. Plants which are raised to be used by people and animals are called crops.

1. Some families in the city and country have gardens where they grow crops as food for their own use.

2. Most crops are raised on large farms.

a. Farmers who have large farms may grow some crops for their families and their animals.

b. Most crops raised on large farms are sold to stores or they are sold to factories where they are processed to be sold to the stores.

C. Crop farmers and farm workers must work very hard to produce good crops.

1. Farmers must make very careful plans before planting their crops.

a. They must decide <u>what</u> crops to plant--what crops will grow in their soil with their particular growing conditions, what crops will sell, etc.

b. They must decide <u>where</u> to plant each kind of crop.

c. They must decide <u>when</u> to plant the crops--time of year, wetness or dryness of the soil.

d. They must decide <u>how</u> to plant the crops--the machinery they will need, the amount of help they will need.

2. Farmers must prepare the soil for planting.

a. Farmers use tractors and attachments such as plows and harrows to break up the ground.

b. Sometimes farmers add fertilizer or other chemicals (lime) to the soil to make the soil rich in plant food for the crops.

3. Farmers must plant the seeds, tubers, or small plants which will produce the crops.

a. Many farmers use machines called seed planters, seeders, or drills to plant the seeds.

b. Seeds are planted in long, straight or curved rows.

4. Farmers must provide for the needs of their plants.

a. They must weed around many of the plants, using hoes or cultivators, so that the plant roots will have enough space to grow and so that the plants will receive enough water and sunlight.

b. If there is little rain, farmers may need to water the plants or irrigate the soil to provide the water plants need to grow.

c. Usually farmers put fertilizer on or in the ground to give the plants the food they need to grow.

5. Farmers must protect their plants from harmful animals and from cold weather.

a. Farmers must watch for insects and diseases which are harmful to the crops. They can protect their crops in a variety of ways.

b. Some farmers put fences around their fields to keep out the animals that might eat the crops.

c. Some farmers put scarecrows in their fields or tie rags on the fences to scare away birds that would eat seeds and crops.

d. Some farmers have smudge pots to put in their fields and orchards to prevent the plants from freezing on cold nights.

D. Farm crops are raised for different purposes.

1. Some crops are raised for food for people.

   a. Many vegetables are riased on farms in fields--carrots, radishes, lettuce, onions, cabbage, green peppers, broccoli, cauliflower, cucumbers, tomatoes, potatoes, eggplant, celery, beans, peas, asparagus, soybeans, peanuts, squash.

   b. Many fruits are raised on farms in orchards--apples, peaches, pears, cherries; in groves--oranges, grapefruit, lemons, limes; in fields--strawberries, blueberries, pineapples, watermelons, canteloupes; or in vineyards--grapes.

   c. Many grains are raised for food in large fields on farms--wheat, corn, rye, barley, oats.

   d. Some plants are raised for oils which are used as cooking oils and in margarine--peanuts for peanut oil; corn for corn oil; cotton for cotton seed oil.

   e. Sugar beets, sugar cane, and sorghum cane are raised for processing into sugar, molasses, and sorghum syrup.

2. Some crops are raised for food for animals. Grains which are raised to feed animals are called fodder or feed.

3. Some crops are raised for non-food products.

   a. Cotton is raised for its fibers which are made into cotton cloth for clothing, sheets, and towels.

   b. Tobacco is a plant raised for its leaves which are processed to make cigarettes, cigars, pipe tobacco, and chewing tobacco.

4. Some crops are raised for several purposes.

   a. Peanuts are raised for the underground seeds which are used by people (peanuts, peanut oil, peanut brittle) and for the plant which is used for fodder for animals.

   b. Soybeans are raised for the seeds which are used by people (soybean oil, oil meal, food supplements and food products) and for the plant which is used for fodder.

E. Certain parts of a plant are used by people for food or other products.

1. Some plants are raised for their roots or root parts--radish, beet, carrot, turnip, sweet potato.

2. Some plants are raised for their stems--celery, rhubarb, asparagus; underground stems (tubers), such as the white potato.

3. Some plants are raised for their leaves--lettuce, cabbage, turnip greens, spinach, endive; bulbs, such as onions.

4. Some plants are raised for their seeds--grains, such as corn, rye, oats, barley, rice; legumes, such as peas and lima beans.

5. Some plants are raised for their fruit, the food storage area of the plant which contains the seeds--okra, eggplant, green pepper, tomato, green beans, cucumber, apple, pear, peach, cherry, berries, orange, lemon, lime, grapefruit, canteloupe, watermelon.

6. Some plants are raised for their flowers--broccoli and cauliflower.

F. When the crop is fully grown or ripe, the farmer must harvest it.

1. Harvest time is a very busy time on a farm.

2. Tobacco and most fruits and vegetables are harvested by hand. Many people are needed for picking, examining, sorting, and packaging these crops.

3. Some crops are harvested by machines.

a. Grains are harvested using combines, reaping machines, threshing machines, and corn-picking machines.

b. Cotton is picked by cotton harvesters.

c. Hay, raised for fodder, is harvested by mowers, rakes, and balers.

G. Harvested crops are sent directly to market, transported to factories for processing, or are stored at the farm or in warehouses.

1. Many fruits and vegetables are crated or boxed and transported by trucks, trains, or planes to stores which buy the food from the farmer.

2. Many crops are packaged and transported to factories which buy the crops from the farmer and process them.

   a. Many fruits and vegetables are transported to food processing factories where they are canned or frozen in different forms and later sold to stores.

   b. Many grains are transported by trains to factories called mills. There they are ground into flour which is then sold and transported to stores.

   c. Cotton bolls are transported to cotton gins to have the seeds removed. Then they are shipped to factories where the cotton is processed into thread and woven into cotton material.

   d. Some parts of plants cannot be used for food. These go to other factories to be made into cosmetics, plastics, soaps, paints, etc.

3. Some harvested crops are stored at farms or in warehouses.

   a. Foods such as apples and potatoes may be stored in cool places and sold to stores or factories at a later time.

   b. Tobacco is stored and dried in barns at the farm and later sold to tobacco companies for processing.

   c. Grains kept for fodder may be stored on farms in bins, corncribs, silos, or grain elevators.

H. Food crops which farmers raise and sell are sold to people at food stores, grocery stores, and supermarkets.

1. The products sold in a supermarket or grocery store are called groceries.

2. The groceries are well organized so that people can find what they need.

   a. The groceries are ordered in shelves and bins which are arranged in rows or aisles.

   b. There are rows of foods and rows of household supplies.

   c. Each type of grocery is in a special section of the store and is labeled with a sign over the aisle.

3. Almost all the foods in the grocery store are products from farms.

   a. Meats and eggs are products of farm animals.

   b. Dairy products are made from the milk and cream which come from the cows on dairy farms.

   c. Breads, pastas, pastries, and cookies are made from flour which comes from wheat, rye, and other grains grown on crop farms. Cereals are made from grains.

   d. Fruits from crop farms can be found in many forms--fresh, frozen, and canned; juices, jellies, jello, and drinks; in pies, pastries, ice cream, and candy.

   e. Vegetables from crop farms can be found in many forms--fresh, frozen, and canned; juices and sauces; pickles, catsup, relish, and soups.

4. Each object is given a price which people must pay in order to buy it.

   a. Most groceries have a price stamped on the container.

   b. Some foods, such as meats, fruits, vegetables, and some candies, are often priced by the pound and must be weighed when bought.

   c. Some foods, like eggs, fruits, vegetables, are priced by the dozen or another given number and must be counted when bought.

   d. Some vegetables are priced by the head--lettuce, endive, cauliflower, and cabbage; by the bunch--radishes, carrots, beets, broccoli, and green onions; by the stalk--celery.

   e. Some fruits are sold by the bushel or half-bushel--apples, peaches, and pears; or by the quart or pint--berries.

III. Farm Crops--Skills

Visual Skills

Likeness and difference skills: pictures--color, shape, size, number, external part, internal part, orientation
What's missing?
Word matching, recognition, identification (can and box labels; recipes and ingredients)
Whole-part-whole: puzzles, pasting plant parts and pasting basic shapes to make vehicles (tractors, etc.)
Patterning (if appropriate) (strip farming)
Map reading (with field trips)
Sign reading--review (with field trips)

Auditory Skills

Discriminating and identifying farm sounds
Rhythm and sound patterning--(with songs and records)
Rhyming: 1. Discriminate and identify rhyming words
2. Produce words which rhyme with a given word
Initial Sounds:
1. Discriminate and identify words that begin with the same sound
2. Produce words which begin with the same sound as a given word (Peter Piper)
Discriminate and reproduce voice intonations in dramatic play

Concept Development

Color

review: all, including light and dark shades
stress: identification of colors of foods using no visual aids

Shape

review: all plane shapes
introduce: pear shape
review: all solid shapes--cube, cone, cylinder, sphere
review: design patterns--polka dot, print, checked, solid
review: straight, curved, parallel, perpendicular (with rows, fences, roads)

Size

review: large, small, middle size; long, short; tall, short; wide, narrow; fat, thin
stress: comparatives with three or more objects

Size (cont.)
review: use of ruler--foot
introduce: yardstick and measuring tape; inch, yard

Number
review: sets 0-10; numerals 0-12; fractions: half, fourth, third
introduce: eighth
review: subsets
stress: natural order (follow-the-dot, ruler, yardstick, scales, clock); greater than, less than; story problems--set union; finding a remaining set; finding a missing set; counting to 100; counting by decades
introduce: decade numerals--10-100; money--penny, nickel, dime, quarter, dollar

Position
review: all
stress: right, left; combinations of position words; ordinal position--first to tenth (Ten Big Farms)

Volume
review: some, more, most; some, less, least; full, empty, half full
stress: cup, quart, gallon; tablespoon, teaspoon (with cooking and "reading" recipes)

Auditory (if appropriate)
review: loud, soft; high, low; long short

Texture
review: all
stress: comparatives (with skin and insides of fruits and vegetables; soil)

Weight
review: all
stress: comparatives
introduce: food scales (work with numerals to 12); pound

Temperature
review: hot, cold, warm, cool
stress: comparatives (weather, cooking temperatures)
introduce: numerals on the thermometer (using decades only)

Time (with farmer's schedule and sequence of crop growth)

review: night, day; morning, noon, night; afternoon, evening; breakfast, lunch, dinner; breakfast, dinner, supper; yesterday, today; this week, next week, last week; early, late, on time; seasons--autumn, winter, spring; weekend, weekday

stress: days of the week; time of day using clock--hours (numerals 1-12); summer

Age

review: young, old; new, old

stress: comparatives

Motion

review: all (if appropriate); fast, slow comparisons

introduce: farming activities--digging, raking, planting, hoeing, weeding, watering or sprinkling, picking

Affective

stress: any emotions which are emphasized in stories

Association Skills

Machinery with use
Food crop with products
Processed food with source
Plants with needs
Farmer with job
Twenty Questions
Riddles
Concentration game
Quiz games

Classification Skills

Crops by color
Crops: above ground vs. below ground; vegetables vs. fruits vs. grains; stem vs. root vs. leaf vs. fruit
Foods: fresh vs. canned vs. frozen
Foods: breads vs. fruits vs. vegetables vs. dairy products vs. meats

Sequencing Skills

Farmer's day
Farmer's responsibilities during growing season

Sequencing Skills (cont.)

Sequence of plant growth
Sequence of crop movement from field to grocery store (Apples from Orchard to Market)
Sequence of seasons, beginning with any season
Bread making
Book events
Trip events
Original stories with logical sequence of events
Steps in cooking activities
Following a sequence of four directions

Critical Thinking Skills

Interpreting stories and events: drawing relationships, anticipating and predicting, interpreting emotions, creating an alternative story ending, creating titles for original stories, creating alternative titles for commercial stories

Problem-solving: mathematical, social, scientific
Absurdity games

Verbal Response Skills

Complete sentence structure
Articulation
Fluency: write stories, description contests, review events, write experience charts, discussions, dramatizations and role play, Twenty Questions, riddles, quiz games
Sentence structure: questions (Twenty Questions), negatives (with classification and Twenty Questions), "if-then" questions, comparatives with all basic concepts, "or" statements

Motor Response Skills

Coordination Skills

pasting	drawing (pencils)	coloring	paper folding	following dots
modeling	painting (water colors)	cutting	tracing	printing

Orientation Skills

left-to-right, top-to-bottom, front-to-back

IV. Sequenced Instructional Guide

UNIT UNDERSTANDING: A. There are many different kinds of farms.

SKILLS TO BE DEVELOPED		SUGGESTED INSTRUCTIONAL ACTIVITIES
Visual		1. Using a picture of a farm, review what the children have already learned about farms. Discuss the different items in the picture. The picture can be used to develop position concepts; e.g., near and far away. Describe something in the picture and have the children guess what it is. Example: "The yellow animal next to the barn . . . what is it?"
1.,2.	Likeness and difference	
Auditory		
4.	Rhythm patterning--songs	
Concept Development		
2.	Size: comparatives	
1.	Position: near, far	
Association		2. Read a story about different kinds of farms (Ten Big Farms). Encourage discussion about sizes of farms as well as the different kinds of things that can be raised on farms.
3.	Farms with things usually found on them	3. Have each child select pictures of things associated with farms from magazines and cut them out. Divide the children into groups and have the groups write stories about their pictures.
Sequencing		4. Teach or review "Farmer in the Dell." The children can act out the parts in the song. Teacher-made flannel cut-outs can be used for sequencing the song. Scramble the usual order and have the children rearrange the figures on the flannelboard. (See Appendix.)
4.	Song verses, "Farmer in the Dell" characters	
Verbal Response		TEACHER'S NOTES:
1.,2., 3.,4.	Fluency and discussions: write stories, role play	
Motor Response		
3.	Coordination: cutting	

UNIT UNDERSTANDING: B. Plants which are raised to be used by people are called crops.

SKILLS TO BE DEVELOPED	SUGGESTED INSTRUCTIONAL ACTIVITIES
Visual 1.,2. Likeness and difference Concept Development 4. Number: story problems Sequencing 3. Crops from field to market Verbal Response 1.,2. Fluency: discussions Motor Response 4. Coordination: cutting, pasting TEACHER'S NOTES:	1. Introduce the concept of crops with some good illustrations of crops growing. If a garden was planted earlier, recall the kinds of crops that the children planted. 2. A film like "The Country Mouse and the City Mouse" could help the children discriminate between country and city and provide a good basis for discussion. 3. A book that sequences production of a farm crop from field to market should help set the whole outline for this unit. (Example: About Apples From Orchard to Market) 4. Have the children cut out paper apples and use them for set work--story problems involving set union and set separation. Later they can paste their apples on a sheet of paper to take home. 5. Make a wall display of a crop farm. Begin with a simple scene and add the fields, fruit trees, etc., as you introduce them to the class. (See Appendix for more suggestions.)

TEACHER'S NOTES:

UNIT UNDERSTANDING: C. Crop farmers and farm workers must work very hard to produce good crops.

SKILLS TO BE DEVELOPED		SUGGESTED INSTRUCTIONAL ACTIVITIES
Visual		1. Read a book about the steps involved in farming (e.g., The Little Farm). Have the children sequence the story. Have the children order pictures of the different stages in the farming sequence.
5.,6.,8.	Likeness and difference	
Concept Development		2. If your class planted a garden earlier, have the children recall all the steps covered so far with this garden: planning for the garden, preparation of the soil, and planting seeds.
8.	Shape: design patterns	
Sequencing		3. Use the picture "The Plowed Field" from Ginn Kit A. Discuss how the field got plowed and what step in farming comes next.
1.	Book events	
1.,2.,3.	Steps in farming	4. Read Jack and the Beanstalk. Have a dramatization of the story using appropriate props. The children could cut out leaves and make a beanstalk.
6.	Plant growth	
Critical Thinking		5. Use pictures and/or models of farm machinery and discuss how they are used in farming. Compare these machines with hand tools (hoe, shovel, etc.). Discuss likenesses and differences in the jobs these tools do, how long the jobs take, and what or who makes the tools work.
6.	Problem solving: scientific	
Verbal Response		6. Show the children several different kinds of seeds, tubers, and small plants. Discuss why a farmer might plant all three kinds. The children can plant the seeds, tubers, and small plants and experiment with rates of growth. To show that the food stored in a potato is necessary to the development of the young plant, plant the part of the potato peeling which contains a bud and plant a piece of a potato with a bud.
3.,4.,5., 6.,7.	Fluency: discussions, role play	
Motor Response		
4.,8.	Coordination: cutting, making a scarecrow	

TEACHER'S NOTES:

Keep under favorable growing conditions and compare how long the sprouts live. (It takes about two weeks for the plants to sprout.)

7. Make a scarecrow for your garden. (See Appendix.) Discuss its purpose. Different small groups of children could have specific farming responsibilities, such as:
   a) checking to see if the garden needs watering,
   b) checking to see if plants are growing well or if they need fertilizer,
   c) removing harmful bugs from plants.

8. Each child can make his own scarecrow using twigs or popsicle sticks. Use material with different patterns so the children can have a review of them.

UNIT UNDERSTANDING: D. Farm crops are raised for different purposes.

SKILLS TO BE DEVELOPED		SUGGESTED INSTRUCTIONAL ACTIVITIES
Visual		1. Read a book or show a film to introduce the concept that some crops are raised for food for people (e.g., "Where Does Our Food Come From"). Discuss and see how many different kinds of food the children can remember. Using pictures or models, play a classification game with crops that people eat vs. crops that are not foods.
2.,3.,4., 5.,6.,8.	Likeness and difference	
Auditory		
8.	Rhythm and sound patterning	
Association		2. Have a tasting party with vegetables. Let the children feel, smell, taste, and describe some vegetables. See if they can come up with some generalizations that might help them recognize vegetables. You could also have a tasting party with raw and cooked vegetables.
11.	Concentration	
2.,4.,5., 7.,9.	Smell, taste, and texture with food	3. Review the different ways vegetables can be prepared and cooked. Demonstrations and/or pictures will help. The children can be involved in peeling, grating, etc. A juicer could be used to show how the juice can be squeezed from vegetables.
10.,11.	Product with source	
Classification		4. Ask the children what would happen if they could not eat all the vegetables grown in their garden. Explain how crops are canned, dried, or frozen to preserve them. Show them some vegetables that are fresh, frozen, canned, and dried. Let the children taste the differences.
1.	Plants we eat vs. plants we do not eat	
Sequencing		
8.	Plant growth	
10.	Cotton production	5. Introduce fruits by having a tasting party with fruits like the one with vegetables. Distinguish among fruits that grow in orchards, in groves, on vines, or on bushes. Bring a fruit basket. Use pictures about the size of the actual fruit. Have each child choose a picture, describe and label it, then put in into the fruit basket.
Critical Thinking		
2.,3., 4.,8.,9.	Problem solving: scientific	

Verbal Response

1.,4., 5.,6. Fluency: discussions, description contests

Motor Response

3.,8. Coordination: preparing food, collage making

TEACHER'S NOTES:

6. Review the ways fruits can be prepared and cooked. Use demonstrations and/or pictures. Use raisins, prunes, dried apples, and dried apricots to illustrate the drying process. See if the children can think of ways fruits can be used that vegetables cannot: jams, jellies, and candies.

7. Have a tasting party game by blindfolding a child and having him taste a fruit or vegetable, then identifying it. Use fruits and vegetables you have already introduced. If possible, cook some of it and have the children discriminate raw and cooked.

8. Introduce the concept of grains with a book like About Grasses, Grains, and Canes. Use pictures and/or real grains (e.g., rice, oats, wheat). Teach the song "Oats, Peas, Beans, and Barley Grow." The children can make a collage with grains. Bring grass seeds to class. Plant some and let them grow until they go to seed to demonstrate where seeds come from.

9. If possible, bring a whole peanut plant and/or a bag of raw unshelled peanuts. Have the children taste the peanuts--raw and cooked. (Explain what the shells are used for.) Make peanut butter in a blender using shelled roasted nuts. After the children have had a taste, save some for 24 hours. By then it should have separated some. Pour off the oil and let them taste the peanut butter again. The oil can be used in cooking. The leaves make feed for cattle.

10. To introduce a non-food product, read a book about cotton (e.g., Cotton, From Farm to Market). If possible, show the class a cotton boll. Display products made out of cotton. Review the sequence of cotton production.

11. As a review of crops and their products, make up cards in pairs (e.g., raw and cooked foods, cotton plant and products, peanut plant and products). They can be made by pasting pictures on tagboard. Use these cards for a game of concentration and for other games.

UNIT UNDERSTANDING: E. Certain parts of a plant are used by people for food or other products.

SKILLS TO BE DEVELOPED		SUGGESTED INSTRUCTIONAL ACTIVITIES
Visual		1. Review the parts of plants--roots, stems, leaves, seeds, fruit. Use a real plant and/or pictures. Bring pictures of plants we eat and show examples of foods that come from the different parts (e.g., carrot--root; celery--stem; spinach--leaves; corn--seed, broccoli--flower; tomato--fruit). Use real food, models and/or pictures for a classification game. Have the children group the foods according to parts of a plant.
6.	Likeness and difference	
Concept Development		
5.,6.	Number: counting, natural order	
10.	Texture	
Association		2. Play a game of "I'm thinking of a vegetable . . .." Give two or three characteristics and let the children guess what you are describing. The children can take turns giving descriptions.
1.,8.	Food with part of plant it comes from	
2.	Characteristics of a particular food	3. Discuss seeds that we eat with the children and show them examples--rice, oats, lima beans, corn, and peas. Plant some of them in soil in your classroom and observe the changes they go through. A good way to do this is to plant 12 bean seeds in soil-filled egg shells nested in an egg carton. Each day dig up one seed and examine and discuss what has happened to it. Show the children some plants that have gone to seed.
4.	Food with source	
9.	Twenty Questions	
Classification		4. Read a book about where a specific food we eat comes from (e.g., The Carrot Seed). Have the children sequence the stages in the development of a carrot plant.
1.,8.	Root vs. stem vs. leaves vs. fruit vs. seed vs. flower	
Sequencing		5. Explain to the children what the fruit part of the plant is by showing them examples--real and/or pictures. Cut some fruits open and let the children count and examine the seeds. Help them understand that most
3.,4.	Stages in plant growth	
7.	Film events	

Critical Thinking

3.,5. Problem solving: scientific

Verbal Response

2.,3., 7.,9.,10 Fluency: discussions, description contests, Twenty Questions

9. Sentence structure: questions, negative statements

Motor Response

6.,8. Coordination: following dots, cutting, pasting

TEACHER'S NOTES:

people call the sweet soft juicy foods fruit and other less sweet and firmer foods are usually called vegetables although some may be the fruit part of the plant (e.g., cucumber, squash).

6. Make cut-outs of fruits and vegetables. Have one side colored and the other side black to be a silhouette. Show the black side and see if the children can guess what vegetable is pictured on the other side. These cut-outs can be used to make a follow-the-dot activity on some plain paper. Use numerals 1-10. (See Appendix.)

7. Show a film about a crop farm (e.g., "The Truck Farm"). Discuss the film and sequence it.

8. Have the children make a vegetable booklet with pictures they cut out of magazines or pictures they colored. Group the vegetables according to the part of the plant they are; e.g., put lettuce, greens, and spinach on the same page.

9. Play Twenty Questions using pictures or models of fruits and vegetables. Then have the children think of negative statements about fruits and vegetables; e.g., a fruit which is not sweet—lemon.

10. Put some fruits and vegetables in a bag. Have the children take turns being blindfolded, drawing a vegetable out of the bag, describing how it feels to the other children, and then telling what it is.

UNIT UNDERSTANDING: F. When the crop is fully grown or ripe, the farmer must harvest it.

SKILLS TO BE DEVELOPED	SUGGESTED INSTRUCTIONAL ACTIVITIES
Visual 3. Likeness and difference 2. What's Missing? **Auditory** 6. Initial sounds 6. Rhythm and sound patterning **Concept Development** 2. Number: set union and separation **Association** 1. Season with characteristics 3. Crop with method of harvesting **Classification** 5. Sorting "crops" **Sequencing** 1. Trip events	1. Show the children a picture of autumn and harvesting. Have them recall characteristics of autumn. Discuss when crops are harvested and which crops are harvested in the autumn. Visit a farmers' market and let the children see all the fruits and vegetables that have already been harvested. Make an experience chart about the trip. 2. Play a what's missing game using flannel pear trees. Remove sets of pears from the trees and have the children tell you how many members are in the set you removed. 3. Discuss with the children how various fruits and vegetables might be harvested. Show pictures of the harvesting of different kinds of crops. Have the children take turns in pretending they are harvesting and have the others guess what crop they are harvesting. 4. Show the children pictures of crops being harvested by machine. Discuss how machinery is helpful in farming. 5. Do a sorting activity with food cut-outs, buttons, or beans, etc. Have the children pretend they are sorting crops. Bring a sack of potatoes or apples to school for the children to sort. 6. Teach the children "Peter Piper." Show them a fresh pepper and discuss the way peppers grow. Review the "p" sound. Using pictures of other fruits and vegetables, have the children identify the words with the "p" sound in them. Teach the children the song "Pease Porridge Hot," emphasizing the "p" sound. See if they can supply some more words containing the "p" sound.

Verbal Response

1.,3., 4.,6.	Fluency:	discussions, experience chart, role play

TEACHER'S NOTES:

UNIT UNDERSTANDING: G. Harvested crops are sent directly to market, transported to factories for processing, or are stored at the farm or in warehouses.

SKILLS TO BE DEVELOPED		SUGGESTED INSTRUCTIONAL ACTIVITIES
Visual		1. Read a book like I Want To Be a Store Keeper. Discuss how food gets to stores. Show the children several kinds of containers that a farmer might use to send his crops to market. Include pint baskets or boxes, quart baskets or boxes, crates, sacks from potatoes and onions, oranges, and grapefruit. Discuss the size of the containers and which crops might be shipped in each. Have the children fill the containers with blocks of one size. Have them discover which container holds the most blocks and which holds the fewest. Some "crop-filled" containers can be loaded on a wagon and hauled to a make-believe store.
1.,3.,6.	Likeness and difference	
Concept Development		
1.	Size: comparisons	
1.,4.,6.	Volume: comparisons, measurement	
Association		
1.,2.	Food with containers	
5.	Crop with its products	
Sequencing		2. Potato sacks can be used for a sack race. The children get into the sacks and pull them up waist high. They can walk and/or jump to the finish line.
3.,5.,7.	Food from field to market	3. Using pictures of raw and processed fruits and vegetables, discuss what happens to the raw crops and where they are processed.
4.	Steps in cooking jam	4. Make strawberry or peach jam in the classroom. Involve the children in the process. Later, have the children write an experience chart or recipe for the jam.
6.	Steps in bread making	
Verbal Response		5. Show the picture of wheat growing and display wheat seeds if possible. Discuss how wheat is harvested and processed. Show the children some flour. Have some corn kernels and corn meal to show the children and discuss how corn meal is made.
1.,3.,4.,5.,6.,7.	Fluency: discussions, recipe, quiz game, role play	

Motor Response

2.,4. Coordination: sack race, jam making, bread making

TEACHER'S NOTES:

6. Plan a visit to a local bakery. Discuss what you are going to see and encourage the children to think of questions to ask. After the trip, review what the children saw. Then have your own bread making in the classroom. Involve the children in the process. (If there is time, you can also make cornbread, cookies, etc.) Have a bread-tasting party. Use white, whole wheat, rye, salt rising, etc.

7. Play a quiz game. Have a make-believe store with pictures or models of fruits, vegetables, and bakery goods. The children will each select one and tell where it grows, how it is harvested, and if it is processed, how (e.g., frozen, canned, or dried).

UNIT UNDERSTANDING: H. Food crops which farmers raise and sell are sold to people at food stores, grocery stores, and supermarkets.

SKILLS TO BE DEVELOPED		SUGGESTED INSTRUCTIONAL ACTIVITIES
Concept Development		1. Read a book about the supermarket (e.g., Let's Go to the Supermarket) in preparation for a field trip. Discuss how things are arranged in the supermarket. In planning your supermarket trip, plan to make a purchase in each section of the store; e.g., dairy, meat, produce, and bakery. Your purchases could be used for a meal. By dividing your children into small groups, you could have each group especially responsible for investigating a particular department and then reporting on it. Each group could make a purchase in their special department and go through the check-out line and pay for it.
2.	Weight: food scales, pound	
2.	Number: money	
Association		
1.	Food with department in supermarket	
6.	Quiz games	
Classification		2. Set up a make-believe store. Bring scales to weigh food. A toy cash register and toy money can be good props for a check-out counter. Use pictures or models of food and divide your store area into different departments. The children will probably enjoy role playing in the supermarket.
1.,2., 3.,5.	Breads vs. fruit vs. vegetables vs. dairy products vs. meats	
Critical Thinking		3. The children could cut pictures of food out of magazines and arrange them in groups by department. Make a booklet with a page for each department of the store.
5.	Planning a lunch and foods to buy	
Verbal Response		4. Read a book about supermarkets (e.g., The Day Joe Went to the Supermarket; Crunch, Crunch; Hello Henry). Discuss the book and the supermarket.
1.,2., 4.,5.,6.	Fluency: discussions, role play, quiz games	
Motor Response		5. Discuss the foods we need to keep us healthy. Make a chart of foods needed everyday to remain healthy. Cut and paste pictures of foods and have the children take them home.
3.,5.	Coordination: cutting, pasting	

TEACHER'S NOTES:

6. Play a quiz game using 3 x 5 cards with questions on them about farm crops and foods. Each child will draw a card and the teacher will read him the question. The children could be divided into teams for this game with the score kept on a chalkboard. If a child has difficulty answering a question, his team members could help. If no one on the team can answer, the other team gets a chance. Sample questions are: "Which of these is a fruit: apple or eggs?" "Name a farm crop grown for the root part." "Are beans a food crop?"

V. Instructional Materials

BOOKS		SOURCE
About Apples From Orchard to Market	Green, M. M.	Melmont Publishers, Inc., 1960
About Grasses, Grains and Canes	Uhl, M. J.	Melmont Publishers, Inc., 1964
The Adventure Book of Growing Plants	Miner, F. M.	Capitor Publisher Co., Inc., 1959 (Distributed by Golden)
The Apple Book	Martin, D.	Golden Press, 1964 (Golden Book for Kindergarten)
Best Work Book Ever	Scarry, R.	Golden Press, 1963 (Giant Golden)
The Carrot Seed	Krauss, R.	Scholastic Book Services, 1945
Cotton From Farm to Market	Hammond, W. G.	Coward-McCann, Inc., 1968
Crunch, Crunch	Kessler, E., & Kessler, L.	Doubleday & Co., 1955
The Day Joe Went to the Supermarket	Levenson, D.	Wonder Books, Inc., 1963 (Easy Reader)
Green Eggs and Ham	Dr. Seuss	Beginners Book, Inc., 1960
Hello Henry	Ilse, M. V.	Parents' Magazine Press, 1965
How a Seed Grows	Jordan, H. J.	Thomas Crowell Co., 1960 (Let's-Read-and-Find-Out)
How We Get Our Clothing	McCall, E. S.	Benefic Press, 1961
In My Garden	Zolotow, C.	Lothrop, Lee & Shepard Co., Inc., 1960
I Want To Be a Dairy Farmer	Greene, C.	Children's Press, 1957

BOOKS		SOURCE
I Want To Be a Storekeeper	Greene, C.	Children's Press, 1958
Jack and the Beanstalk	Seiden, A. (Ill.)	Whitman Co., 1964 (Giant Tell-a-Tale)
Let's Find Out About Farms	Campbell, A.	Franklin Watts, Inc., 1968
Let's Find Out About Water	Shapp, M., & Shapp, C.	Franklin Watts, Inc., 1962
Let's Go to the Supermarket	Pope, B. N., & Emmons, R. W.	Taylor Publishing Co., 1966 (Your World, Series I)
Let's Visit a Farm	Pope, B. N., & Emmons, R. W.	Taylor Publishing Co., 1967 (Your World, Series III)
The Little Farm	Lenski, L.	Henry Z. Walck, Inc., 1942
The Little Red Hen	Begley, E. M. (as told by)	Whitman Publishing Div., 1966 (Big Tell-a-Tale)
Milk for You	Schloat, G. W., Jr.	Charles Scribner's Sons, 1951
Nature--An Introduction to Our World	Refoy, M.	Whitman Publishing Co., 1964
Partoruche Plants a Seed	Schecter, B.	Harper & Row, 1966
Pear-Shaped Hill	Leitner, I.	Golden Press, 1960 (Read-It-Yourself)
Peter Rabbit	Ruth, R. (Ill.)	Whitman Co., 1963 (Giant Tell-a-Tale)
Seeds and More Seeds	Selsam, M. E.	Harper & Row, 1959
Ten Apples Up On Top!	LeSieg, T.	Random House, Inc., 1961

BOOKS		SOURCE
Ten Big Farms	Ipcar, D.	Alfred A. Knopf, 1958
What Shall I Put in the Hole That I Dig?	Thompson, E.	Whitman Publishing Co., 1963 (Pillow Book)
Where Does Your Garden Grow?	Goldin, A.	Thomas Y. Crowell Co., 1967
You Visit a Sugar Refinery-Fruit Cannery	Meshover, Leonard	Benefic Press, 1966

FILMS	SOURCE
A Busy Day at the County Fair (11 min.)	Coronet Films
The Country Mouse and the City Mouse (11 min.)	Coronet Films
Eat Well, Grow Well (11 min.)	Coronet Films
Foods From Grains (11 min.)	Coronet Films
The Little Red Hen (11 min.)	Coronet Films
The Rolling Rice Ball (11 min.)	Coronet Films
The Truck Farm (11 min.)	Coronet Films
Where Does Our Food Come From? (11 min.)	Coronet Films
Why Eat Vegetables? (11 min.)	Coronet Films

RECORDS		SOURCE
Rainy Day Record		Bowmar Records
Pease Porridge Hot		
Sing a Song of Home, Neighborhood and Community (4 - 78 rpm)		Bowmar Records
The Grocery Store		

SONGS		SOURCE
Favorite Nursery Songs	Ohanian, P. B. (Ed.)	Random House, 1956
The Muffin Man (p. 10)		
Mulberry Bush (p. 58)		
Oats, Peas, Beans (p. 29)		
Sing a Song of Sixpence (p. 8)		
The Fireside Book of Children's Songs	Winn, M. (Ed.)	Simon & Schuster, 1966
The Farmer in the Dell (p. 180)		
Little Nut Tree (p. 108)		
Little Sacka Sugar (p. 89)		
The Muffin Man (p. 99)		
The Mulberry Bush (p. 172)		

SONGS		SOURCE
The Fireside Book of Children's Songs (cont.)	Winn, M. (Ed.)	Simon & Schuster, 1966
Oats, Peas, Beans and Barley Grow (p. 181)		
Over in the Meadow (p. 70)		
Music Round About Us	Heller, R. (Ed.)	Follett Publishing Co., 1964
Shopping, Then and Now (p. 83)		
The Supermarket (p. 82)		
Music Round the Town	Wolfe, I., & & Krone, B. P. (Eds.)	Follett Publishing Co., 1963
At the Little Corner Store (p. 19)		
Driving the Tractor (p. 23)		
Market Song (p. 13)		
Songs to Grow On	Landeck, B.	Edward B. Marks Music Corp., 1950
The Muffin Man (p. 99)		

POEMS, FINGERPLAYS, AND ACTION VERSES		SOURCE
The Arbuthnot Anthology of Children's Literature	Arbuthnot (Ed.)	Scott, Foresman & Co., 1961
Millions of Strawberries (p. 196)		
Pease Porridge Hot (p. 96)		

POEMS, FINGERPLAYS, AND ACTION VERSES		SOURCE
Read-Aloud Poems Every Young Child Should Know	Barrows, M. (Ed.)	Rand McNally & Co., 1957
Acorns (p. 49)		
Mud (p. 48)		
Song for a Summer Evening (p. 27)		
The Real Mother Goose	Arbuthnot, M. H. (Ed.)	Rand McNally & Co., 1944
Peter Piper Picked a Peck of Pickled Peppers (p. 107)		
Rhymes for Fingers and Flannelboards	Scott, L. B., & Thompson, J. J. (Eds.)	Webster Publishing Co., 1960
The Apple Tree (p. 119)		

CHARTS AND STUDY PRINTS	SOURCE
Advertising material--brochures from farm machinery dealers	
Advertising material--"The Story of a Loaf of Bread"	Continental Bakery
Farm Pictures	Field Enterprises Educational Corporation, 1963
Food Models in Full Color (No. FB12)	National Dairy Council
Magazine pictures	

CHARTS AND STUDY PRINTS	SOURCE
Peabody Language Development Kit Level #1 - Stimulus Cards	American Guidance Service, Inc.
Food cards	
Fruit cards	
Vegetable cards	
Seed catalogue pictures	
Teaching Pictures	David C. Cook Publishing Co.
A Trip to the Farm (No. A1535)	
Food and Nutrition (No. A1532)	
The Three Markets (Unit 10) - Kit A	Ginn & Company
Plowed Field Card (M-59)	
Supermarket (M-31)	
Corner Grocery (M-32)	
Shopping (M-55)	
Farmers Market (L-9)	

FLANNEL BOARD AND MAGNETIC BOARD SETS	SOURCE
DARCEE Flannelboard Set	(See Appendix)
Fruits and Vegetables	

FLANNEL BOARD AND MAGNETIC BOARD SETS	SOURCE
Instructo Flannel Board Aids	Instructo Corporation
Plants and Food (No. 262)	

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Ed-U-Cards Lotto Game	Ed-U-Cards Mfg. Corp.
Farm Lotto (No. 104)	
Hi-Ho Cherry-O (No. 4703)	Whitman Publishing Co.
Picture Readiness Game	Dolch
Fruits	

PUZZLES AND SEQUENCE BOARDS	SOURCE
How Do Your Vegetables Grow? (No. 4420)	Whitman
Judy Puzzles	General Learning Corp.
Jack and the Beanstalk (No. 39, 21 pcs.)	
Supermarket (No. S-9, 50-60 pcs.)	
Judy See-Quees	General Learning Corp.
Grocery Shopping (No. Q-8)	

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Food Set (No. 500)	
Straus Senior Activity Puzzles	Creative Playthings, Inc.
Supermarket (No. T508, 30 pcs.)	

MODELS AND DRAMATIC ACTIVITY MATERIALS	SOURCE
Cotton boll	
Garden tools	
Giant Stand Magnifier (No. A5374)	Creative Playthings, Inc.
Magnifying glass	
Plastic fruits and vegetables	
Samples of cotton material	
Toy tractor with attachments like plow, seeder	

LIQUID DUPLICATORS	SOURCE
Living Things - Level 1	Continental Press
Vegetables (p. 5)	
Fruits (p. 6)	

LIQUID DUPLICATORS	SOURCE
Living Things - Level 2	Continental Press
Plants Grown for Different Reasons (p. 1)	
Plants That We Eat (p. 11)	
Fruits That Are Round (p. 12)	
Things Needed for Plant Growth (p. 14)	
Fruits and Seeds (p. 19)	
Science Observations - Level 1	Continental Press
Foods Have Different Tastes (p. 18)	
Science Observations - Level 2	Continental Press
Tools Used by Farmers and Gardeners (p. 19)	
Thinking Skills - Level 1	Continental Press
Classifying Fruits and Vegetables (p. 1)	

DEMONSTRATION MATERIALS AND EQUIPMENT		SOURCE
Activities		
A-4	Flannelboard	
B-1	Garden	
B-2	Film projector	

DEMONSTRATION MATERIALS AND EQUIPMENT		SOURCE
Activities		
C-2	Garden	
C-4	Props for dramatization of "Jack and the Beanstalk"	
C-5	Models of farm machinery, hand tools	
C-6	Seeds, tubers, and small plants; dirt, containers, potato with buds	
C-8	Twigs or popsicle sticks, different kinds and patterns of material	
D-1	Models of crops	
D-2	Different kinds of vegetables for a tasting party	
D-3	Different kinds of vegetables to be prepared or cooked; utensils; a juicer	
D-4	Fresh, frozen, canned, and dried vegetables	
D-5	Different kinds of fruit for a tasting party; fruit basket	
D-6	Fruit to be prepared and/or cooked; cooking utensils; dried fruit	
D-7	Cooked and raw fruits and vegetables; blindfold	
D-8	Grains (rice, oats, wheat, etc.), grass seeds, soil in containers	
D-9	Peanut plant and/or raw unshelled peanuts; blender	
D-10	Cotton boll, cotton products	
E-1	A plant; foods that come from the different parts of plants: real and/or models	

DEMONSTRATION MATERIALS AND EQUIPMENT		SOURCE
Activities		
E-3	Seeds that we eat--rice, oats, limas, peas, etc; dirt; egg shells; egg carton and other containers	
E-5	Foods that are the fruits of plants	
E-9	Fruit and vegetable models	
E-10	Real fruits and vegetables; blindfold	
F-5	Food cut-outs, buttons, or beans; potatoes and apples or other fruits and vegetables	
F-6	Peppers	
G-1	Pint baskets or boxes, quart baskets or boxes, crates, sacks; blocks; wagon	
G-2	Potato sacks	
G-4	Utensils and ingredients for making jam	
G-5	Wheat seeds, flour, corn kernels, corn meal	
G-6	Ingredients and utensils for bread making; different kinds of bread for a tasting party	
G-7	Models and containers of fruits, vegetables, and bakery goods for a make-believe store	
H-2	Food scales, toy cash register, toy money, food models and containers	

TEACHER-MADE MATERIALS		SOURCE
Activities		
A-4	Farmer-in-the-Dell flannel figures	(See Appendix)
B-5	Farm crops wall display	(See Appendix)
C-7	Scarecrow	(See Appendix)
D-11	"Crops and their products" cards for concentration and other games	
E-6	Fruit and vegetable cut-outs, follow-the-dot drawings	(See Appendix)
F-2	Flannel pear trees	(See Appendix)
H-6	Quiz game cards with questions on them, chalkboard	

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VI. Appendix

The drawings on the following pages are suggested aids in developing the concepts, understandings, and skills related to this unit. They may be used in a variety of ways.

The Farm Crops Scene

The first scene is the farm crops scene which could be helpful in making your bulletin board or wall display. Just as the concepts, activities, and skills are sequenced from the concrete to the abstract, so can the bulletin board be sequenced. When you begin your unit, put up the simplest possible wall display: sky, ground and underground, hills, barn, farmer. As you progress through the unit, add new things to your display until the scene is complete.

This bulletin board can be adapted to your locale and used in many ways throughout the unit. Some of these are:

a) for helping your group recall the crops they have studied,

b) for shape and color (especially shades) recognition and identification,

c) for reviewing and developing position concepts: above ground and below ground, near and far,

d) for What's Missing games,

e) for description and guessing games,

f) for size comparisons,

g) for developing Motor Response Skills if you involve the children in making parts of the wall display.

The Patterns (of items in the wall display and of the DARCEE Flannelboard Set--Fruits and Vegetables)

These patterns can be used in the following ways:

a) for making your wall display--they can be traced or copied onto construction paper,

b) for whole-part-whole pasting activities,

c) for tracing or copying onto stencils and making dittoes for coloring,

d) for tracing onto felt which can be cut out and used on the flannelboard,

e) for tracing onto cardboard which can be cut out and used to make follow-the-dot drawings and which can be traced around onto construction paper.

The Farmer-in-the-Dell Patterns

These drawings can be used to make felt cut-outs for the flannelboard. Use them when you sing the song and for sequencing.

The Scarecrow

The scarecrow drawing can be used in the following ways:

a) for whole-part-whole pasting,

b) for making a felt cut-out,

c) for making dittoes to be colored by the children,

d) as a model for making a scarecrow for your garden: use real clothes, an old hat, a stocking filled with scraps for the head, straw, and string to tie off the legs and arms; hang the scarecrow up on a post planted firmly in the ground.

Helpful Hints in Making Your Bulletin Board

1. Use simple shapes.

2. Keep the scene fairly simple and uncrowded.

3. Cut or tear green paper to represent grass. Use different shades of green for trees.

4. Use yellow paper with brown lines drawn on it to represent the wheat field. Towards the center rear of the scene, make the brown lines closer together on darker yellow paper.

5. Use brown paper for the cross section of the ground and a lighter shade of brown (tan) for the top soil. For the contoured plowed field in the rear, use dark brown with black lines drawn on it to represent the furrows.

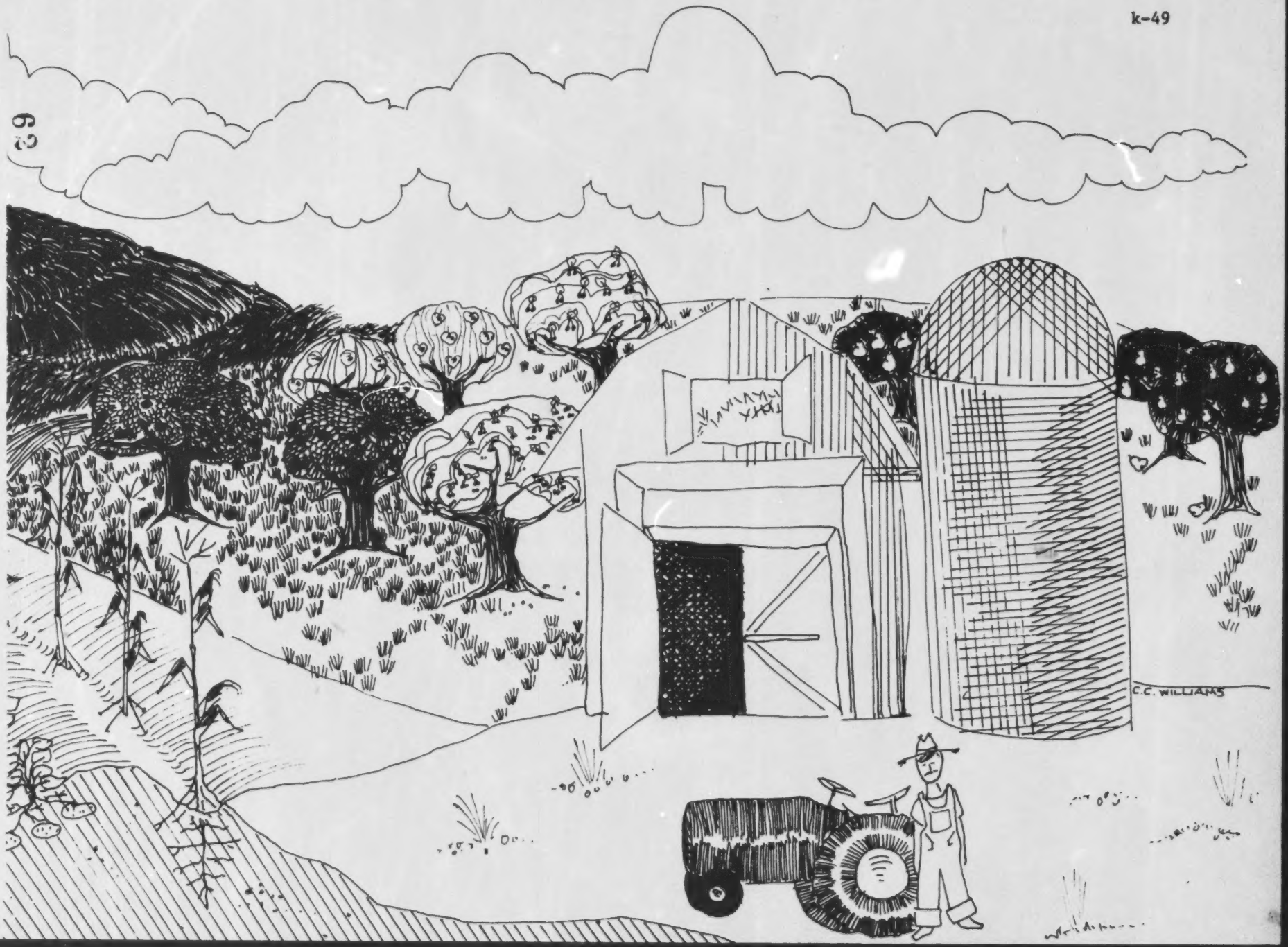
6. The following techniques can be used to give perspective.

   a) Put one item diagonally above the other.

   b) Make one item smaller than and next to the other.

c) Overlap, using two shades with the darker one in the back and the lighter one in front.

BULLETIN BOARD SCENE


C.C. WILLIAMS

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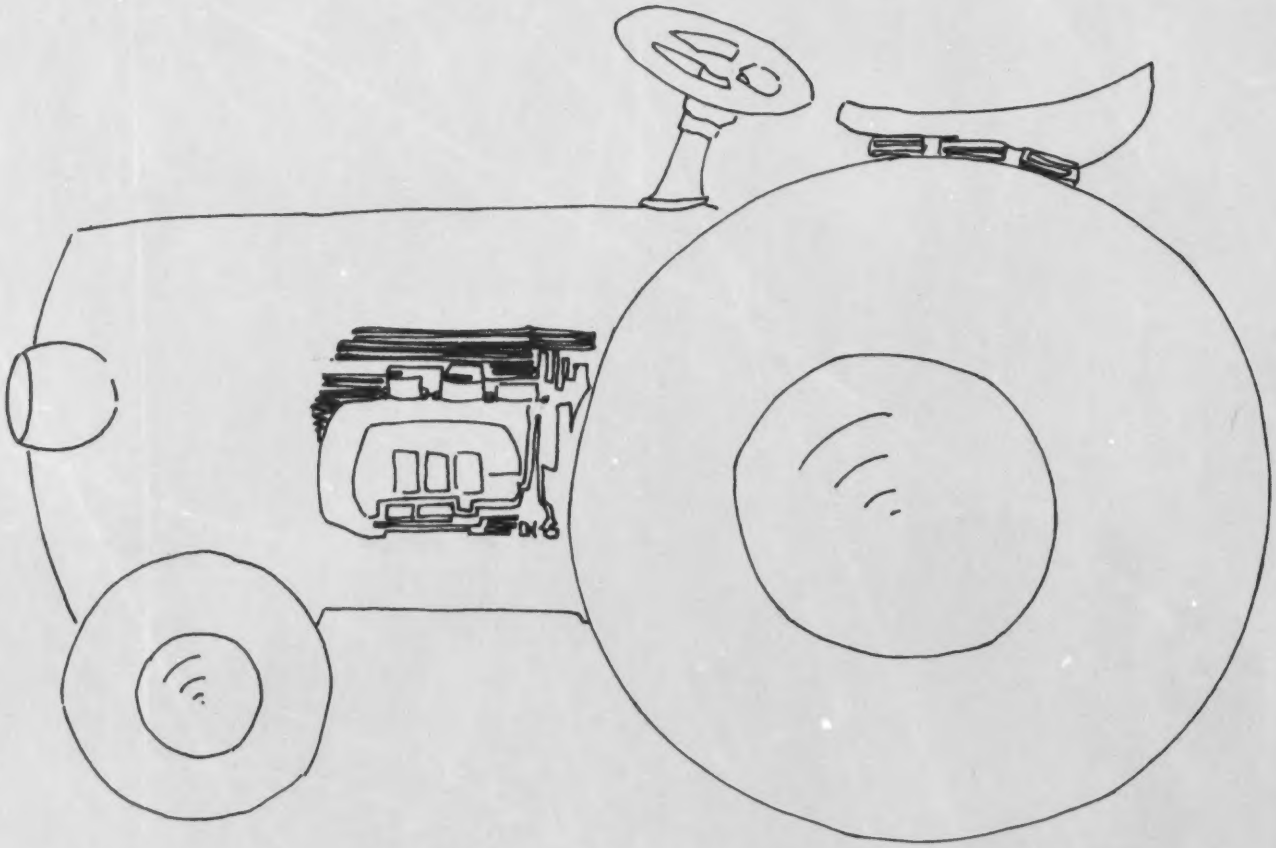
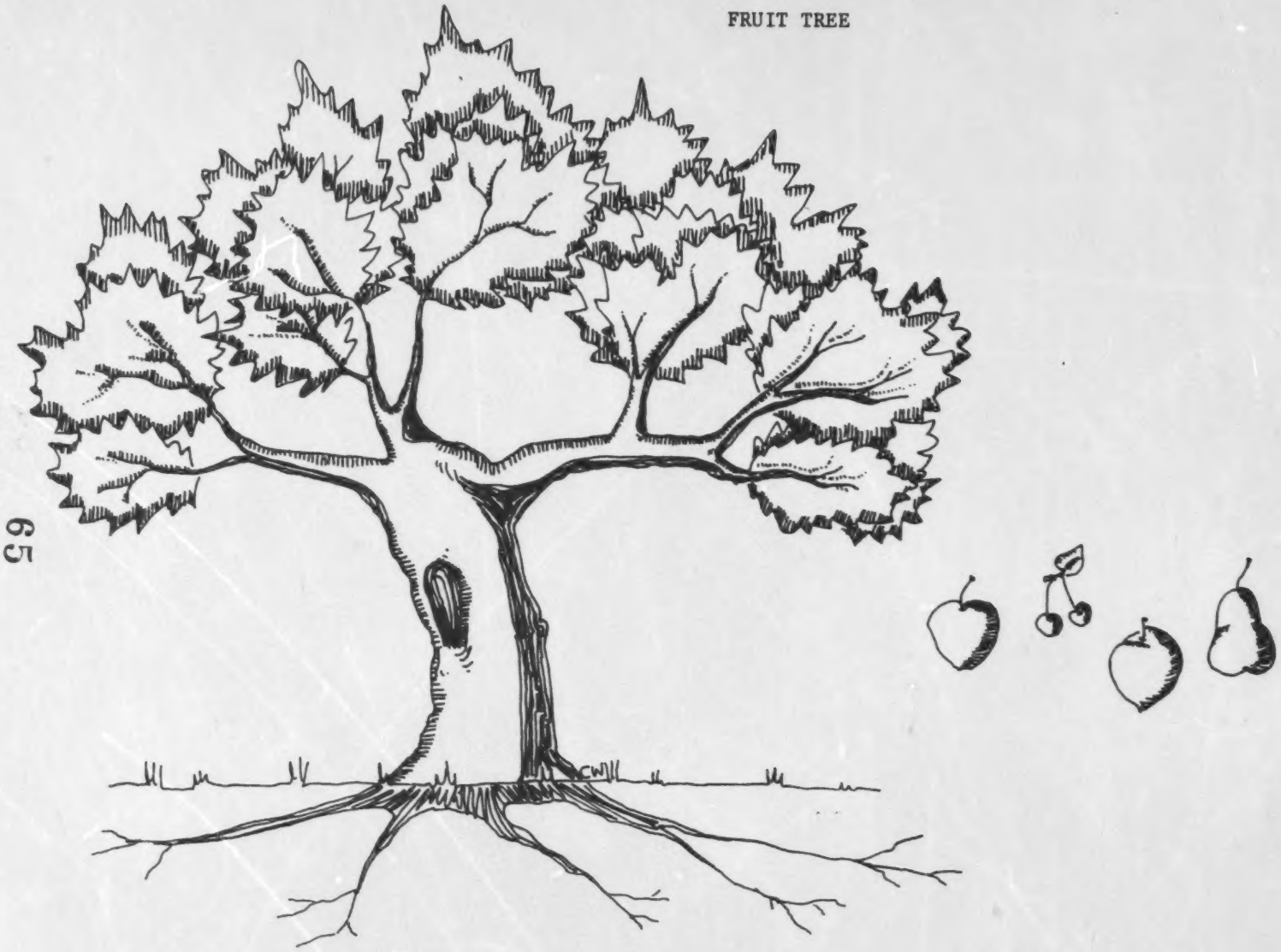
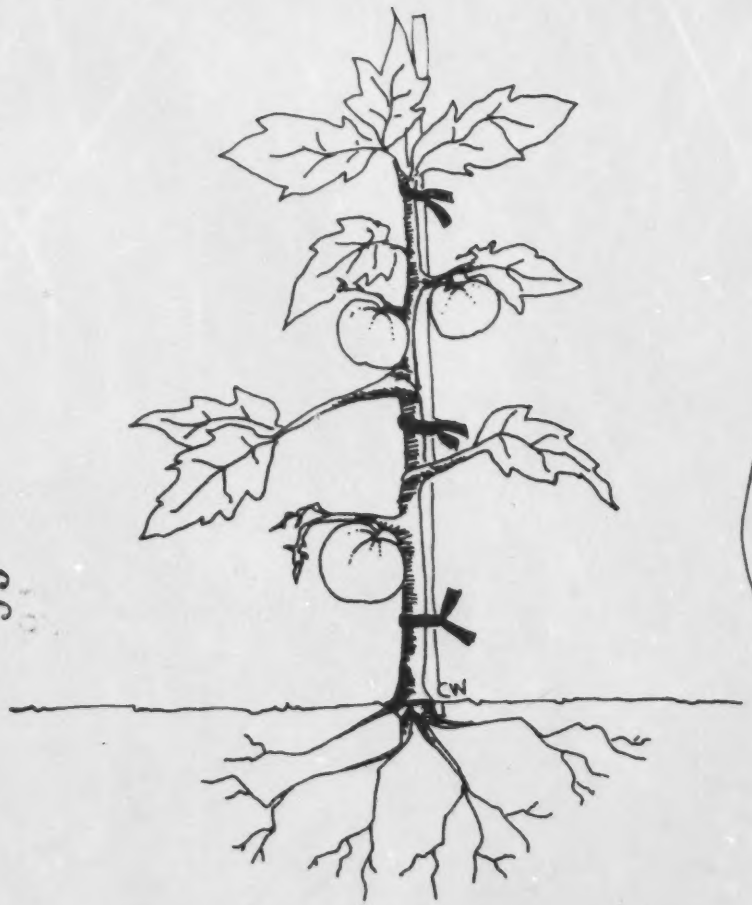


TRACTOR

FRUIT TREE





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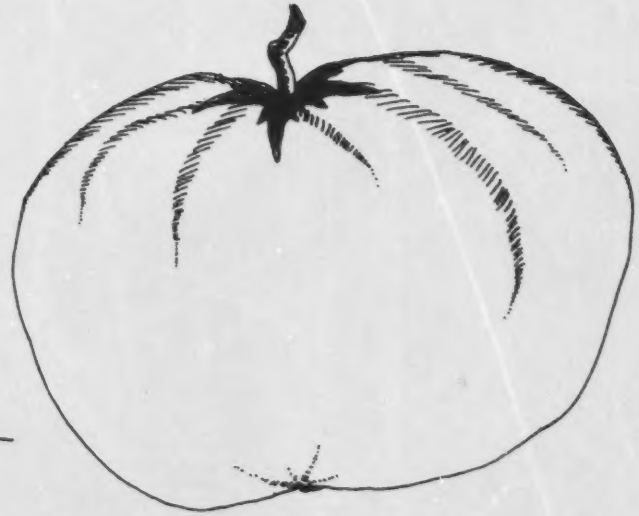

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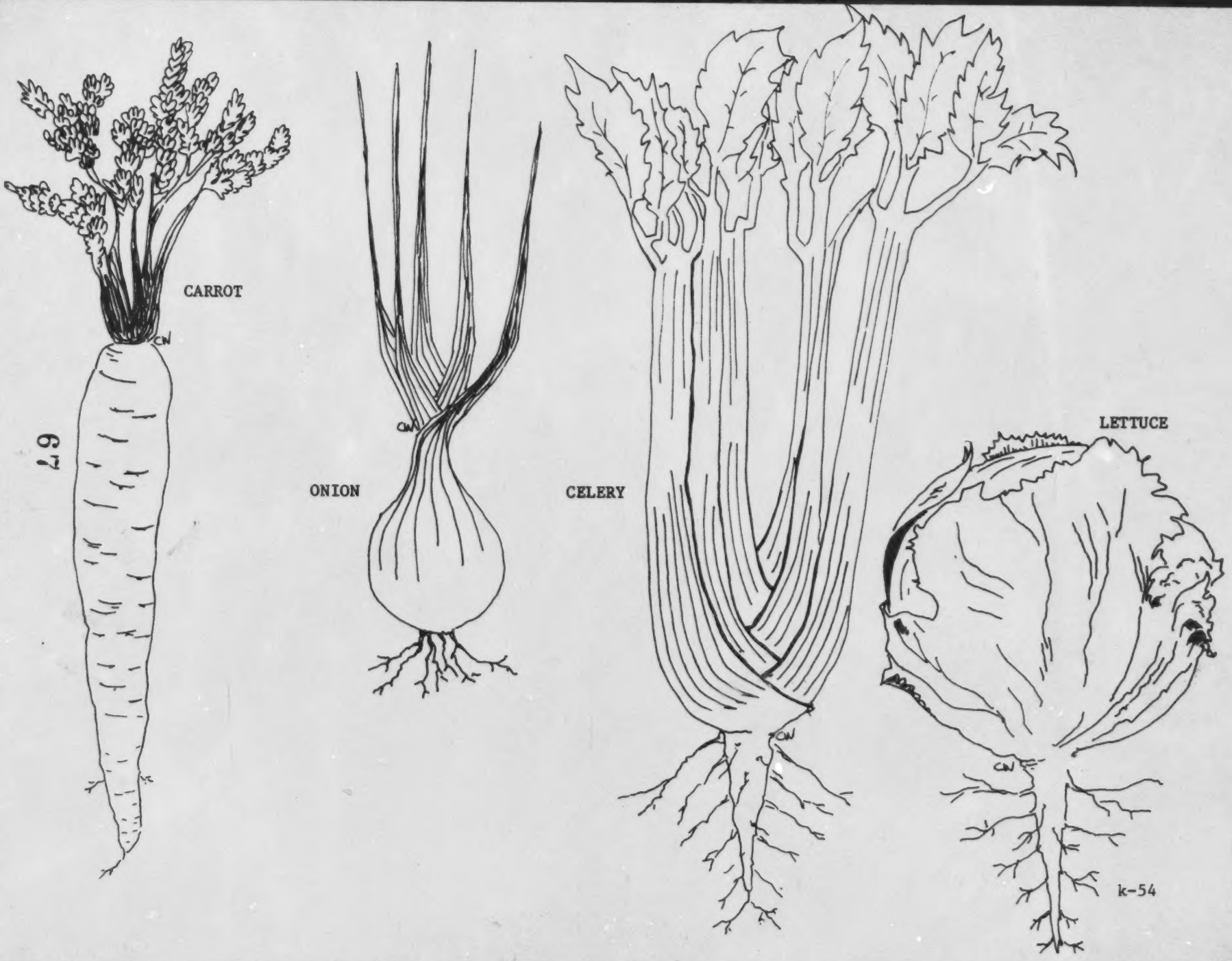
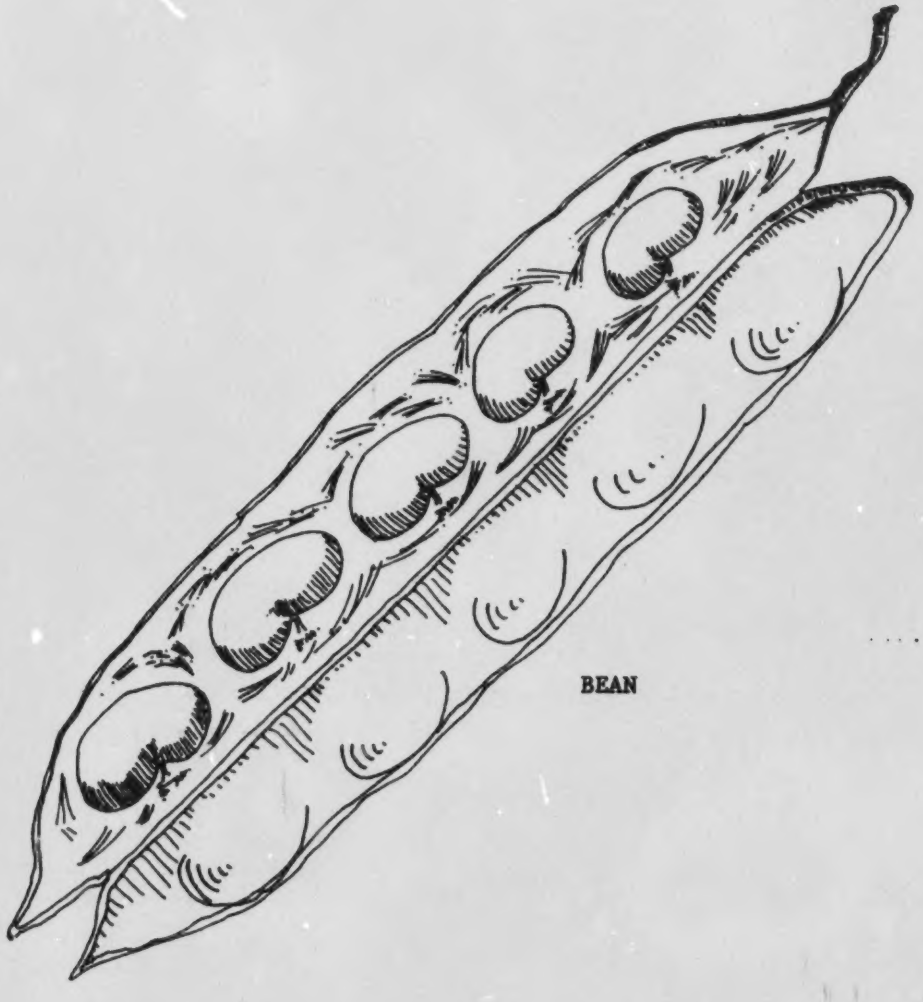

CARROT
CW
ONION
CW
CELERY
CW
LETTUCE
CW
k-54

BEAN PLANT



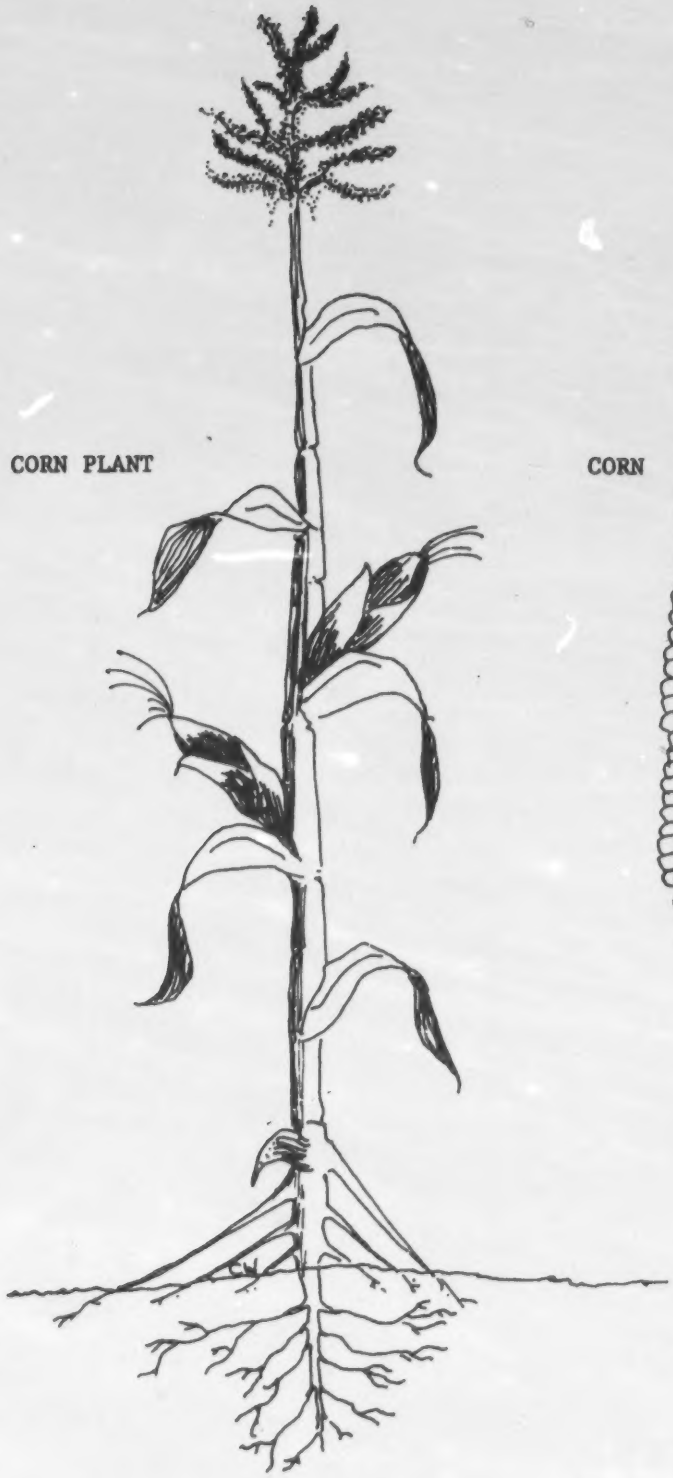
BEAN

POTATO PLANT

POTATO

k-57

CORN PLANT



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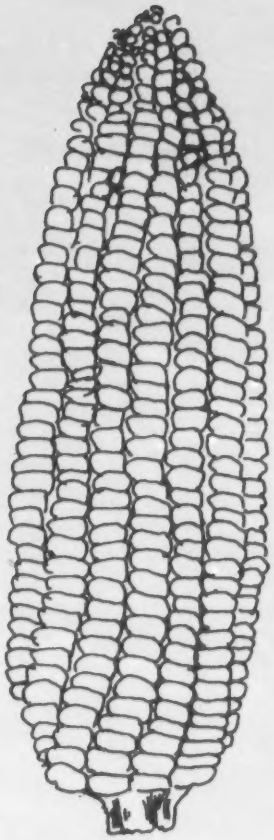

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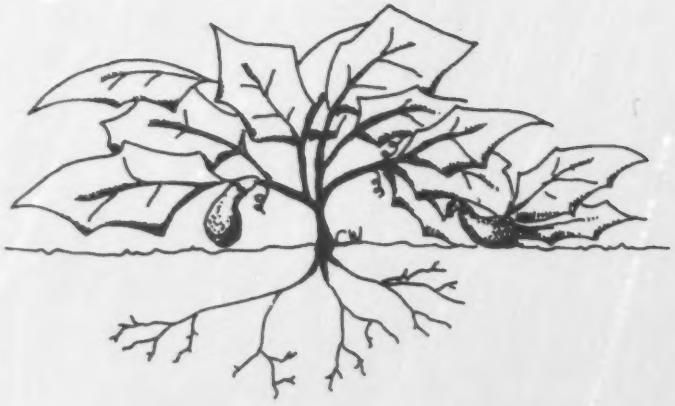

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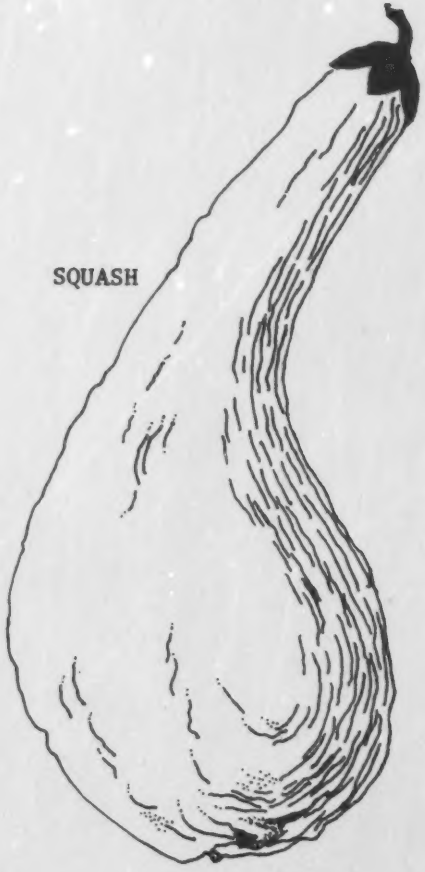

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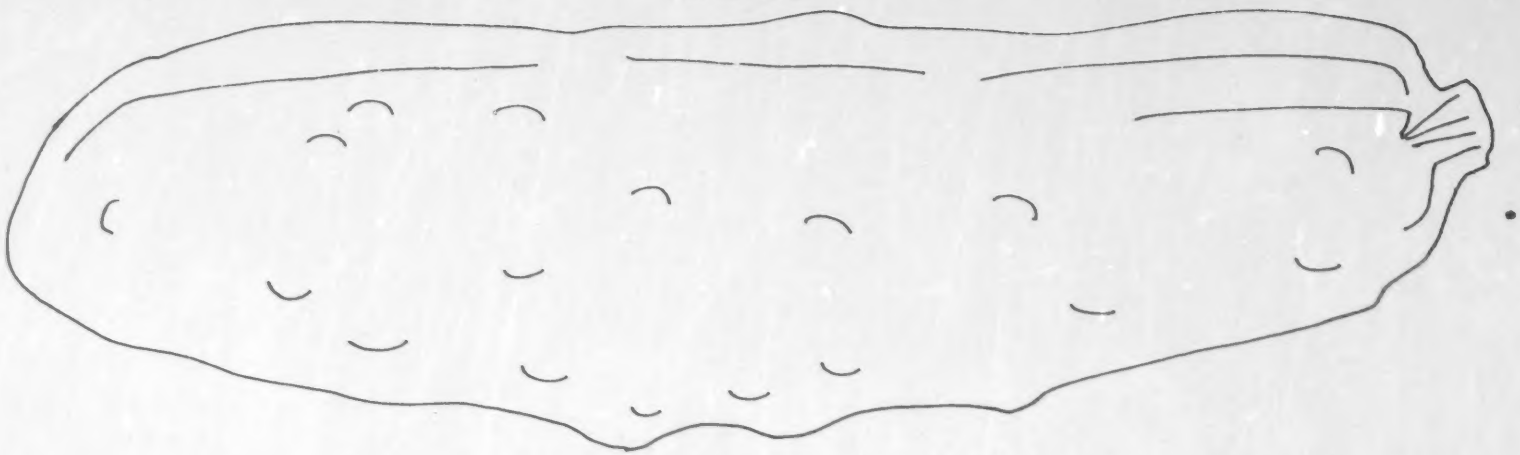

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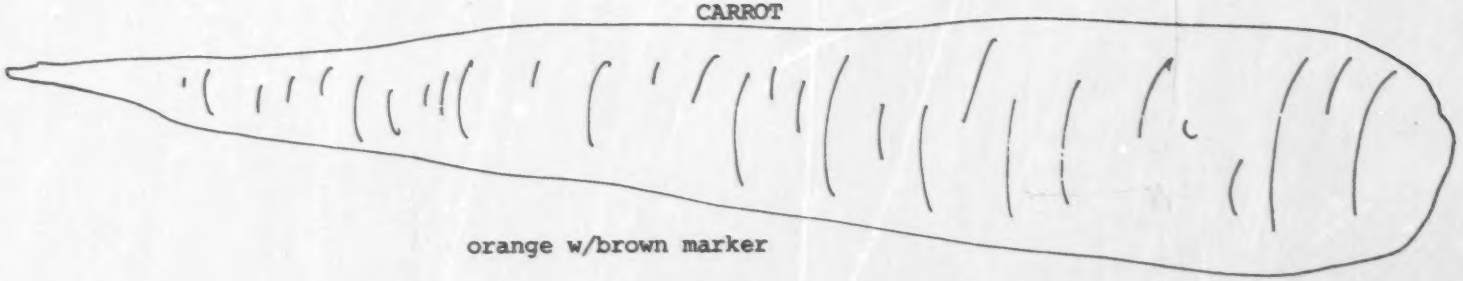
DARCEE Flannel Board Set
Fruits and Vegetables

Activity E-6

CARROT



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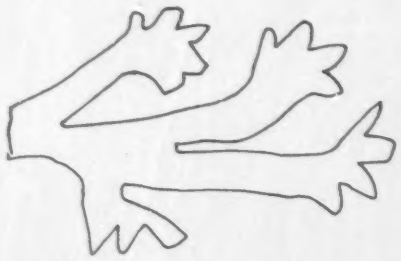
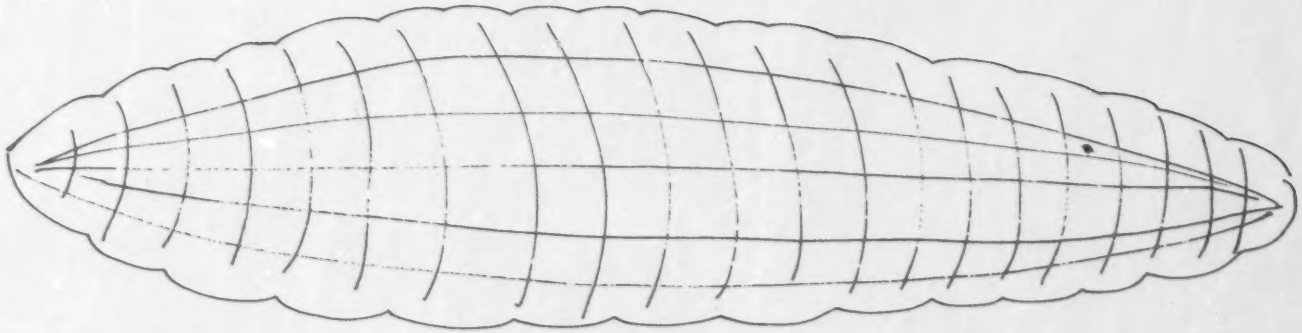


CARROT TOPS

green

CORN



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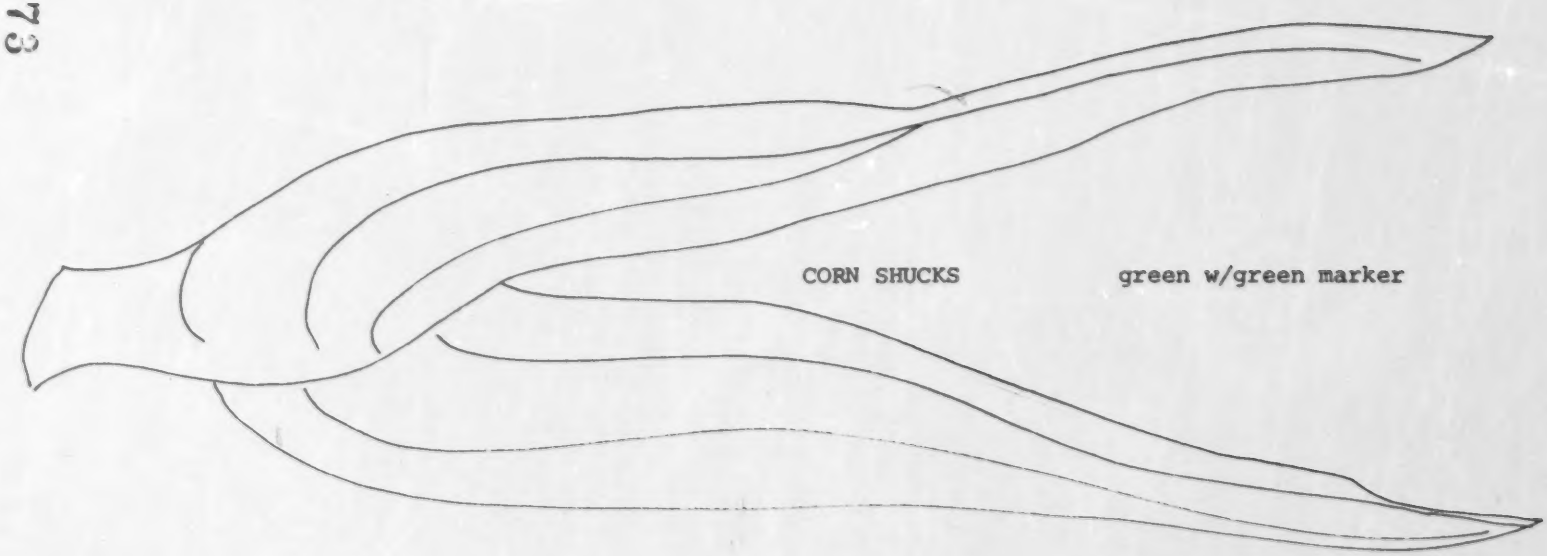

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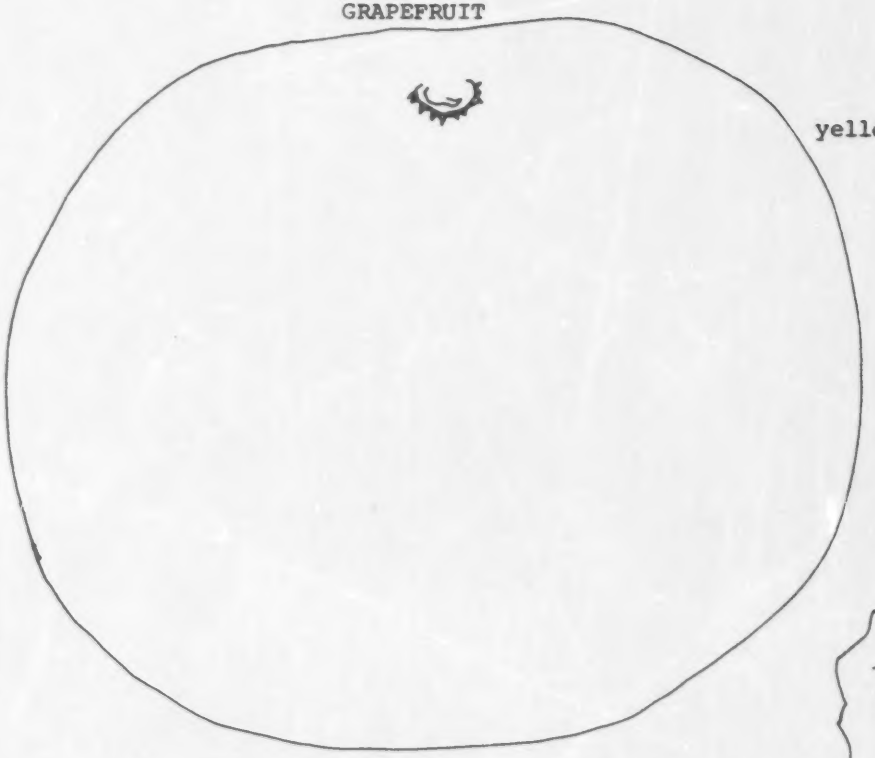
k-60

GRAPEFRUIT



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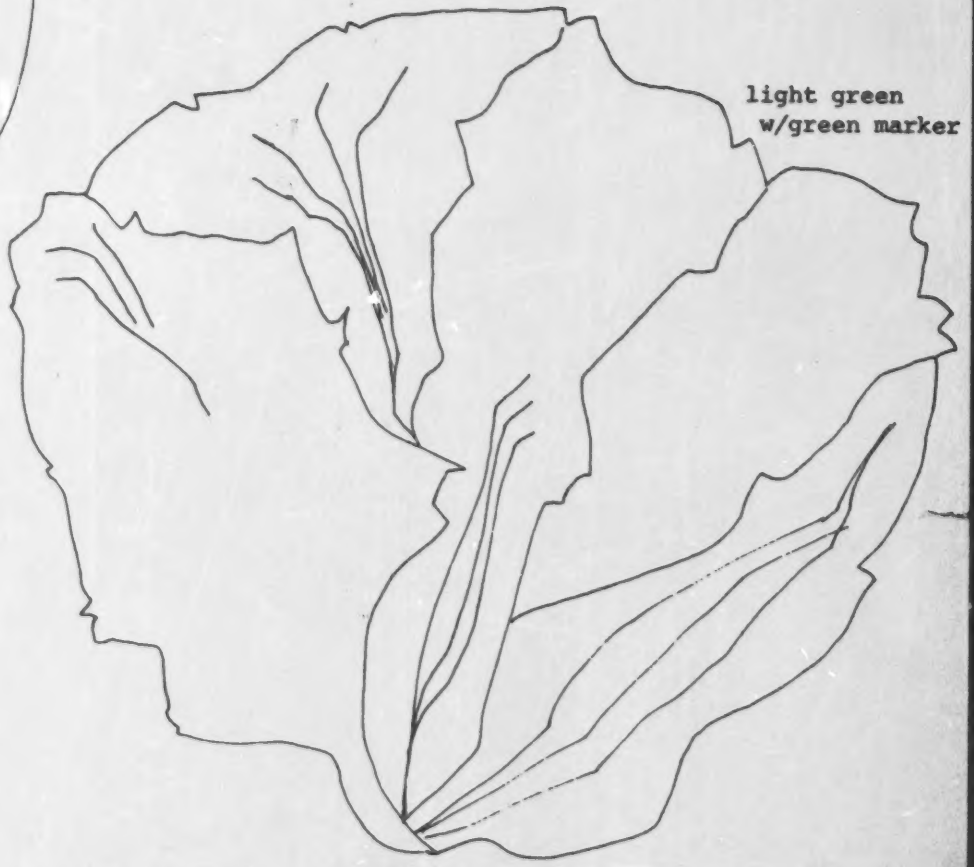

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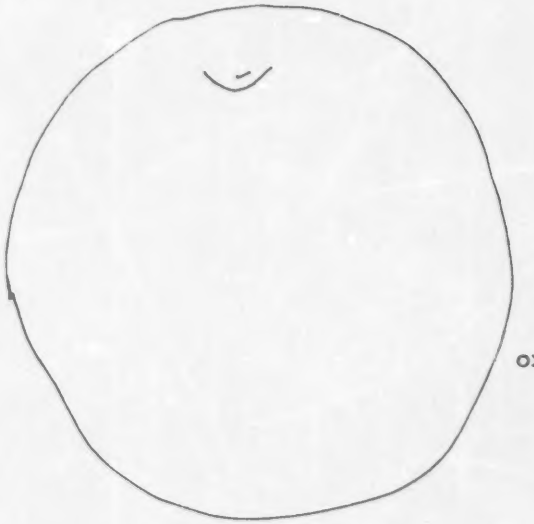
ORANGE



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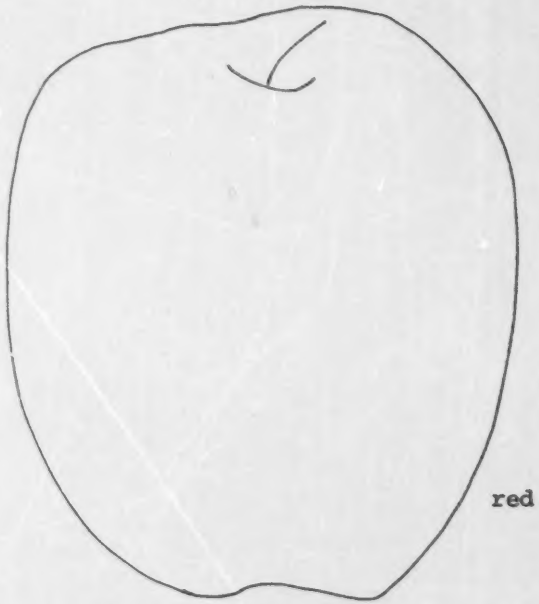

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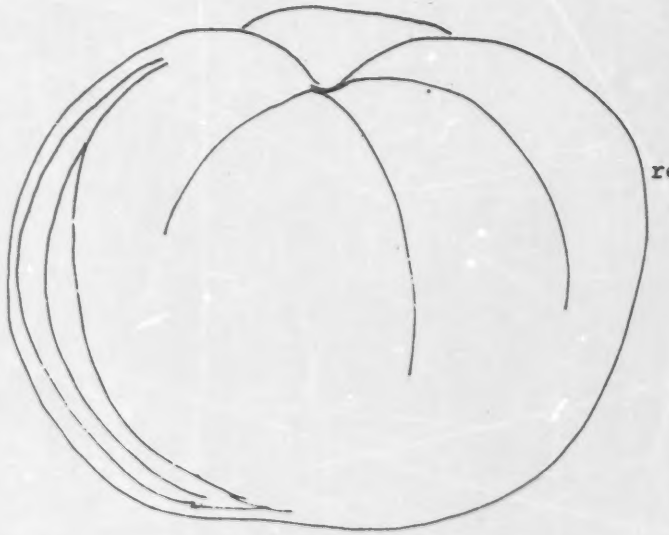

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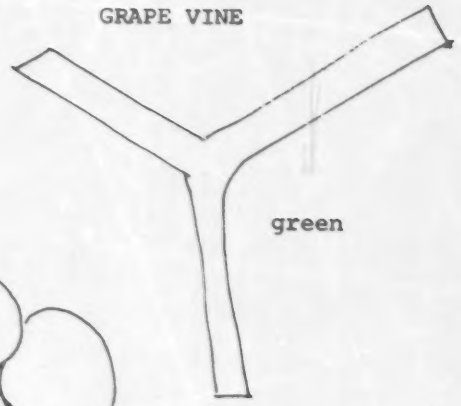
TOMATO LEAVES

green

k-62

GRAPE VINE



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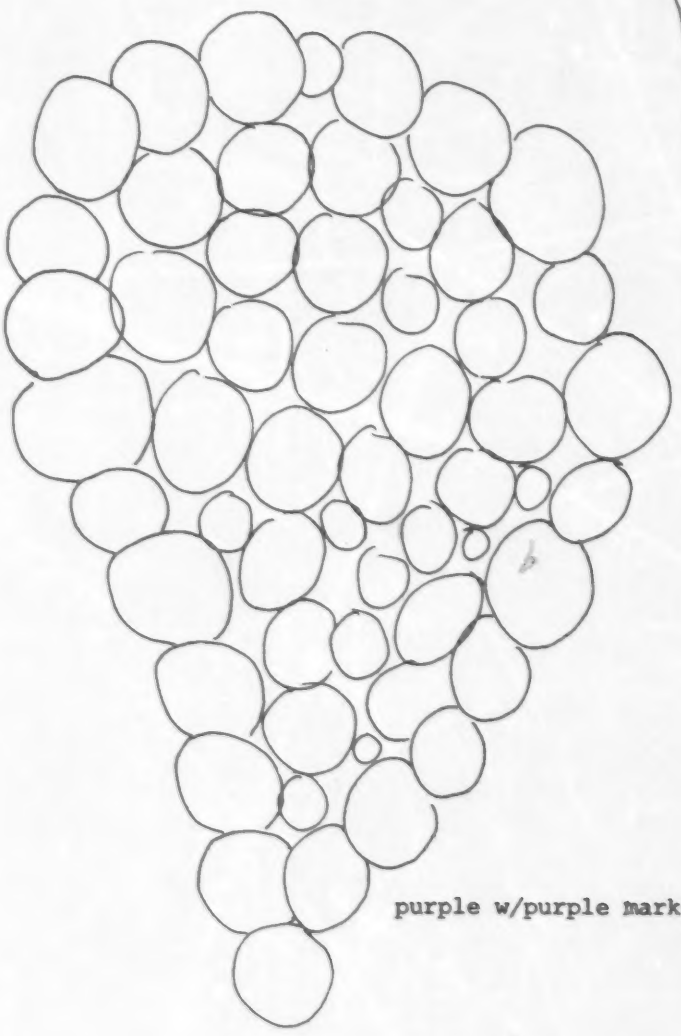

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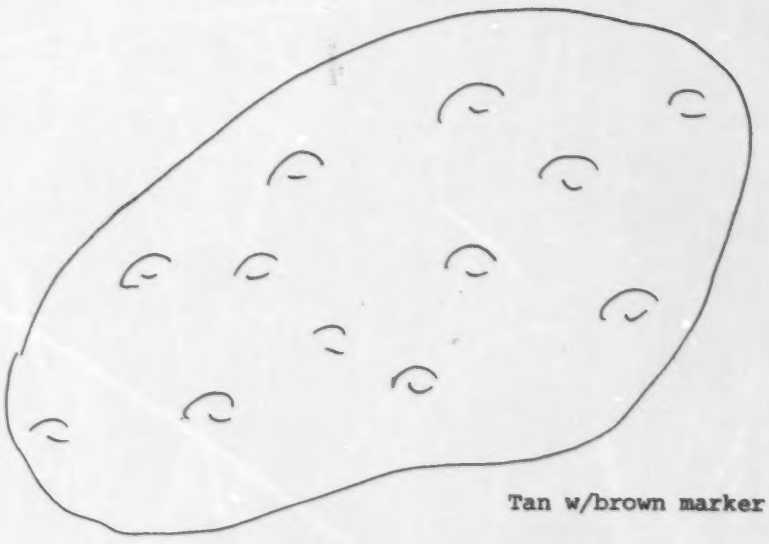

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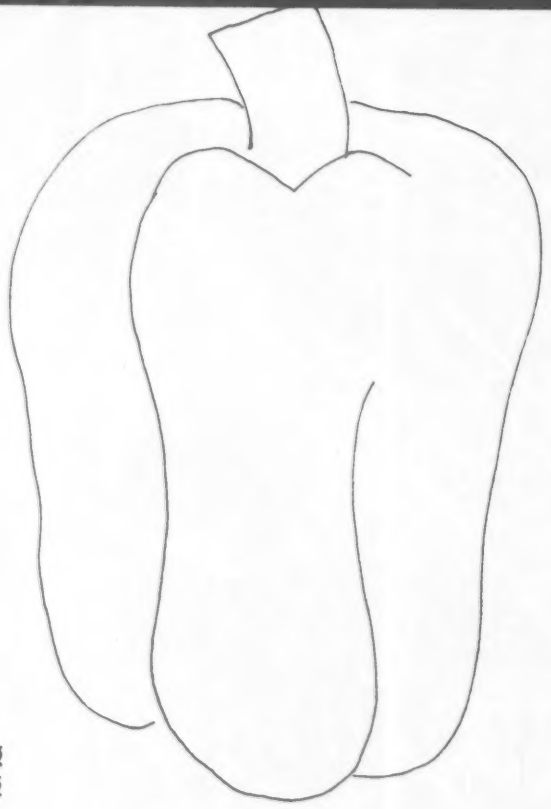

GREEN PEPPER

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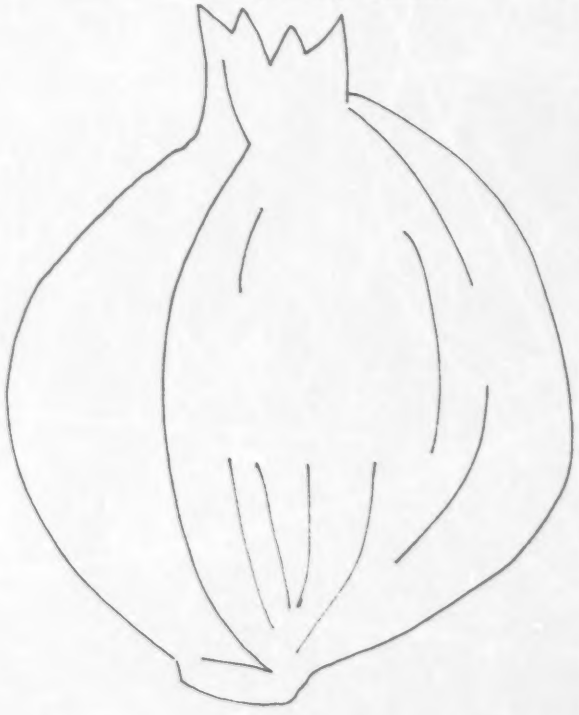
ONION

white w/orange marker

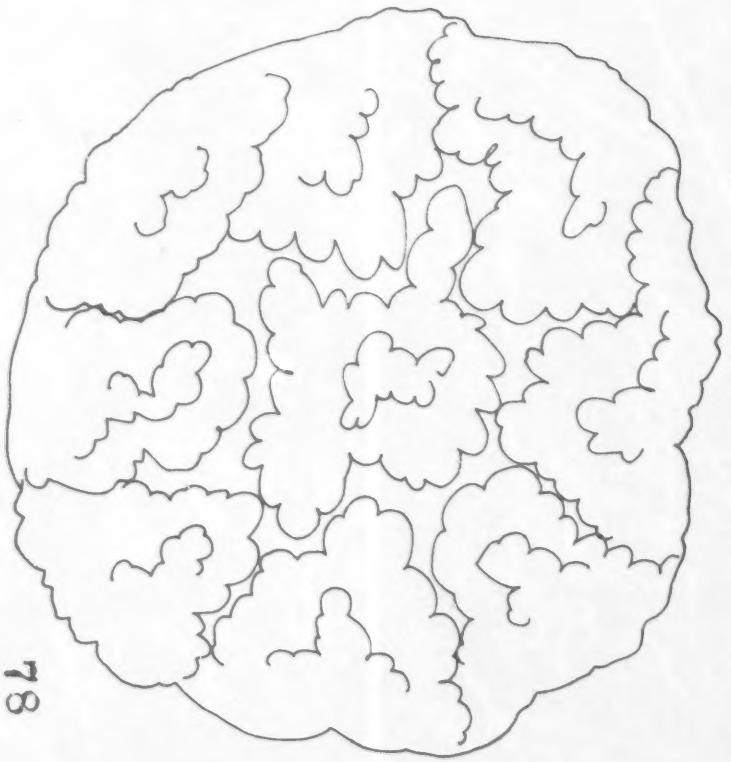


ONION LEAVES

green

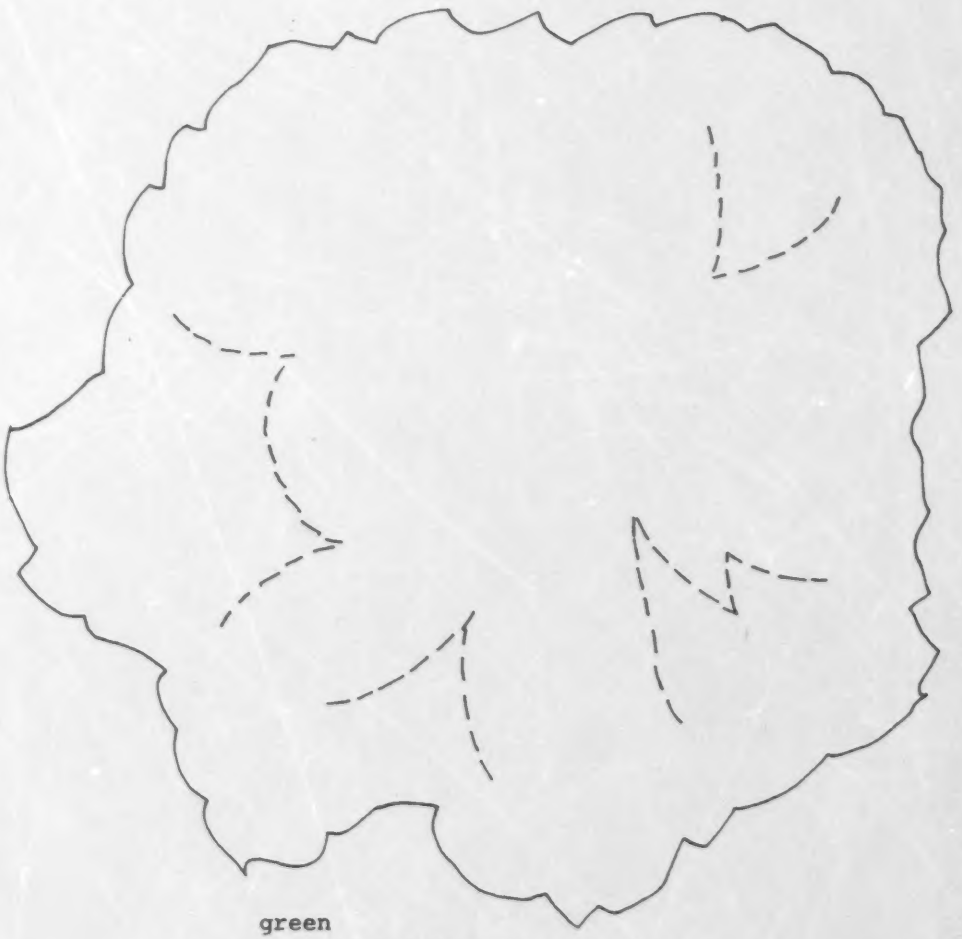
k-64

CAULIFLOWER



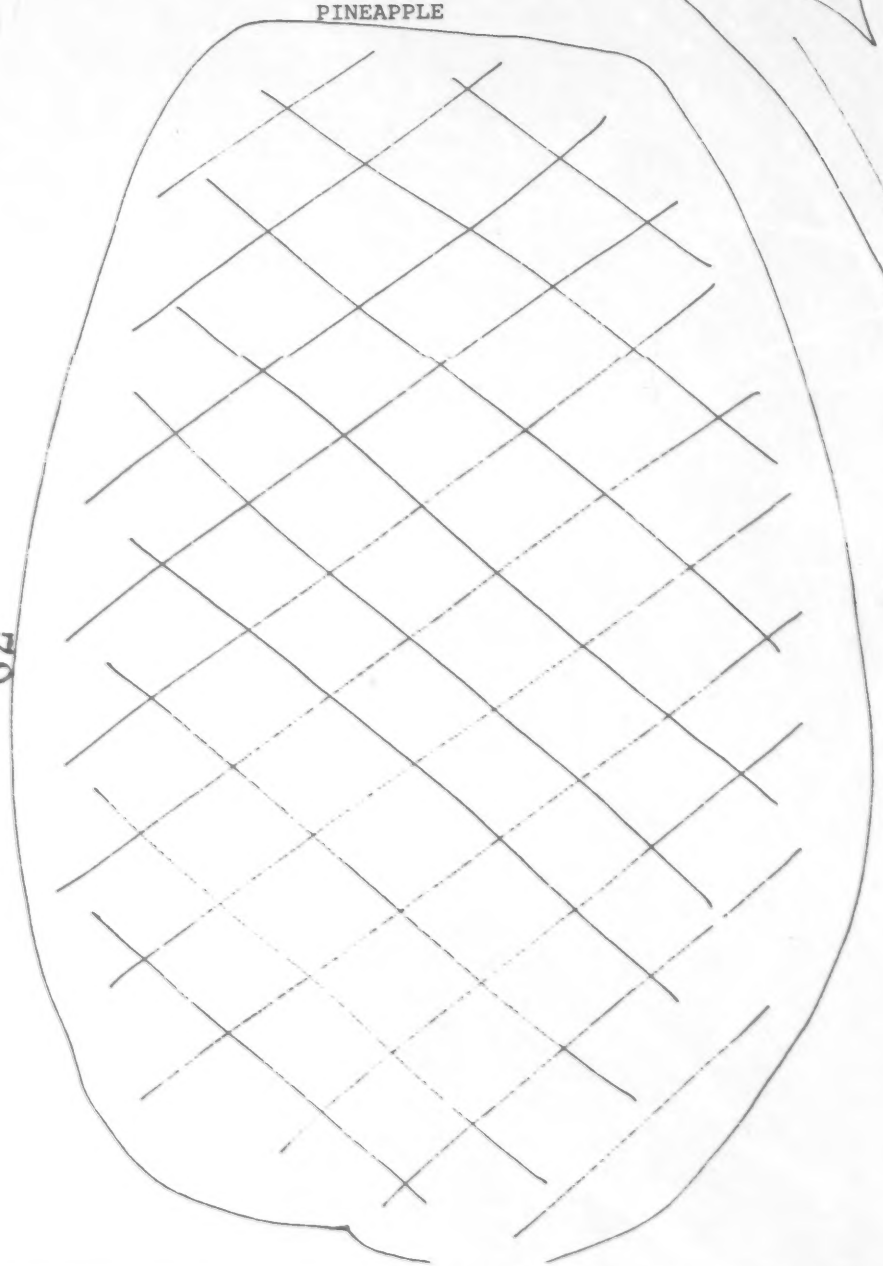
white w/yellow marker

CAULIFLOWER LEAVES

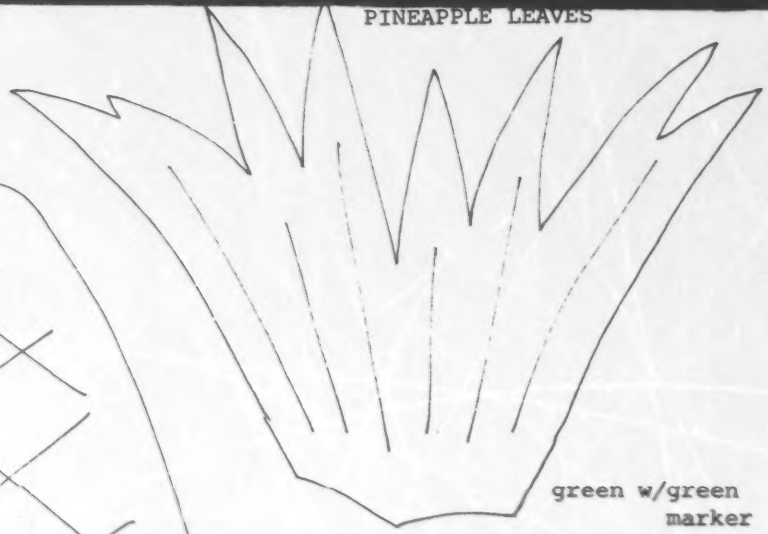


green
cut along dotted lines;
insert Cauliflower.

PINEAPPLE



PINEAPPLE LEAVES



green w/green marker

yellow w/brown marker

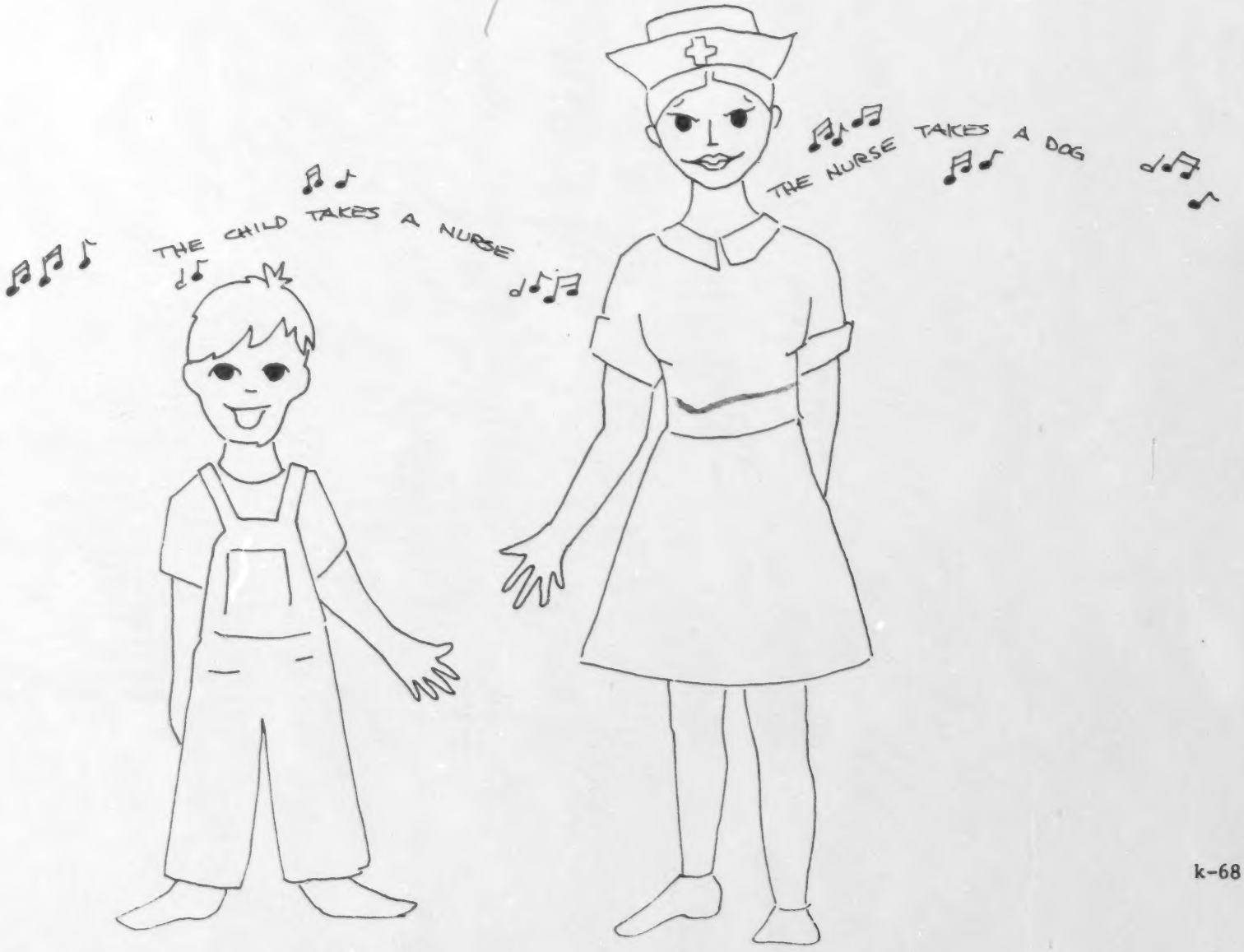
BANANA

yellow w/brown marker

k-66

Farmer-in-the-Dell
Flannel Set

Activity A-4



k-68

k-69

THE DOG TAKES A CAT

THE CAT TAKES A MOUSE

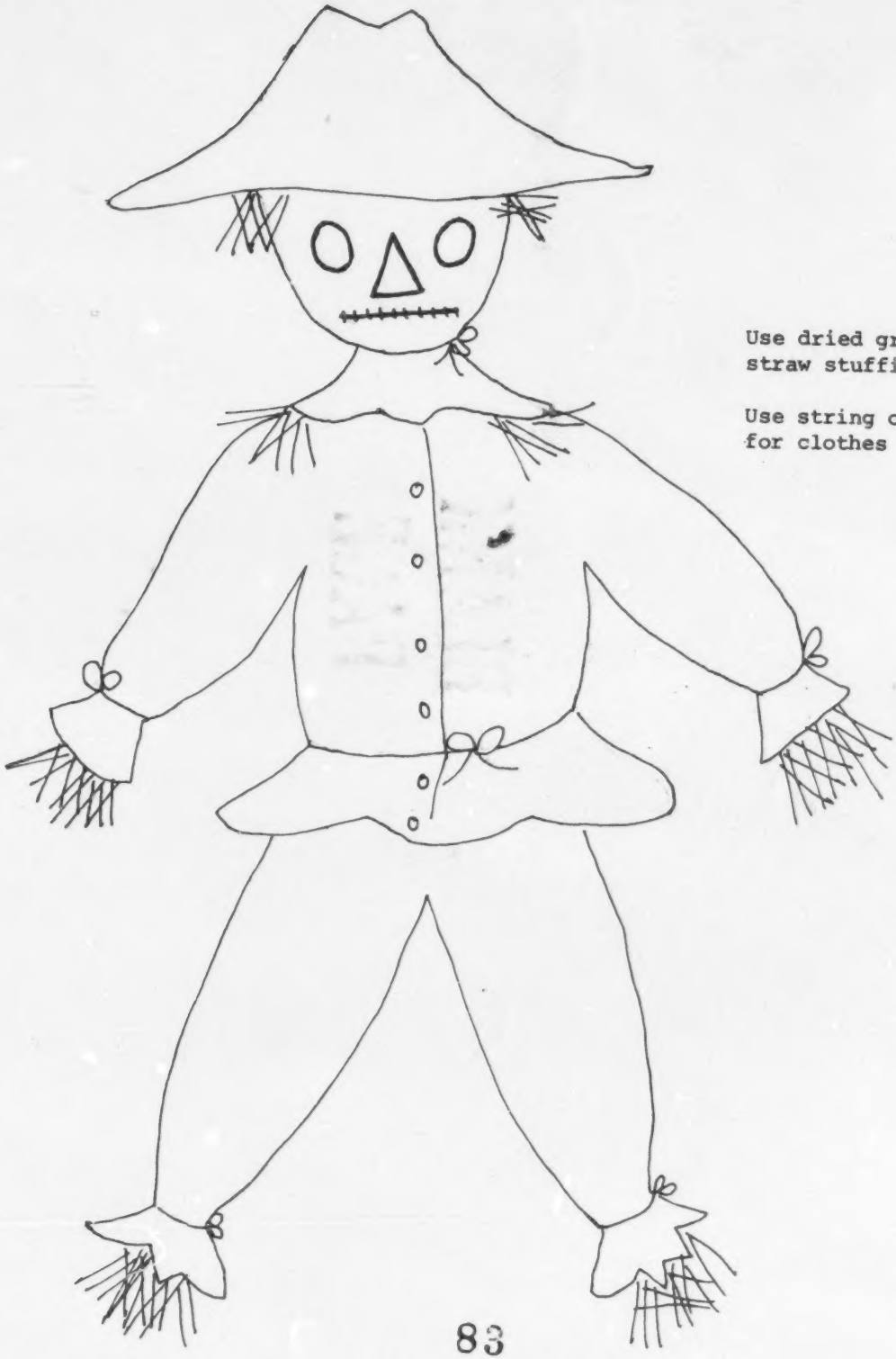
THE CHEESE STANDS ALONE

THE MOUSE TAKES THE CHEESE

Activity C-7

SCARECROW

k-70



Use dried grass for straw stuffing.

Use string or twine for clothes ties.